

Council of the County Palatine of Durham.

SUMMARY

OF THE

ANNUAL REPORTS

OF THE

MEDICAL OFFICERS OF HEALTH,

TOGETHER WITH A

REPORT ON THE VITAL STATISTICS AND
SANITARY CONDITION OF THE ADMINISTRATIVE COUNTY,

FOR THE YEAR 1894,

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THE COUNCIL OF THE COUNTY PALATINE OF DURHAM.

TO THE CHAIRMAN AND MEMBERS OF THE
HEALTH COMMITTEE.

GENTLEMEN,

I herewith present to you my Annual Summary of the Reports of Medical Officers of Health in this Administrative County for the year 1894, which, as in previous years, I have preceded with a report on the public health of the county as a whole, in which reference is briefly made to the chief vital statistics and other matters of sanitary interest during the year.

In compiling the present summary I have followed the arrangement adopted in previous years, dealing separately with the report of each sanitary district, and briefly referring to matters of sanitary interest, or which appear to require the special attention of the District Council. Annual reports from every medical officer of health in the administrative county were sent to the County Council, and, with one or two exceptions (which exceptions, however, delayed the publication of this summary for a considerable time), were in my hands within three months of the end of the year.

I see no reason why every annual report should not be completed, printed, and sent to the County

Council by the end of February of the succeeding year, and if that were done this summary could be completed by the end of the first quarter.

Both as regards the form of the reports and the accuracy of their vital statistics there is generally some improvement to be noted, but in several of the reports there were errors or omissions in the statistics which a little care would have avoided, while in one or two neither system nor completeness appears to have been regarded, and consequently such reports are but of very little value as indicating the sanitary condition of the districts to which they refer.

There is much more uniformity in the compilation of the reports than was formerly the case, the system most generally adopted being to deal in the following order with

1. *Vital statistics.*
2. *Infectious diseases, their prevalence, and the means taken to prevent their spread.*
3. *General sanitation* (including water supply, drainage, house accommodation, excrement disposal and removal, sanitary bye-laws, etc.)
4. *Sanitary requirements*, which are however only separately referred to in a few reports.

The arrangement of a report on these lines is both simple and satisfactory, and might with advantage be adopted by all the medical officers of health.

My remarks in last year's summary as to the desirability of the annual health reports being printed appears to have received but little attention, for of the

52 annual reports those for the following districts were again unprinted.

URBAN.

Blaydon (type written).	Southwick.
Houghton-le-Spring.	Tow Law.
Ryton (type written).	Whickham.

RURAL.

Houghton-le-Spring (2 reports).

Unless the reports are printed and circulated, at any rate among the members of the District Council, they will receive but little of the attention they require, and it is not to be expected that a medical officer of health will continue to devote much time and energy to a report which, if not "taken as read," at any rate does not receive due consideration.

The sanitary work accomplished or undertaken in the county during the past year has been very considerable, and the progress made during 1893 has been fully maintained. In the housing of the working classes and the provision of privy accommodation the improvement is perhaps most noticeable, as the County Council has given special attention to these matters, but as regards drainage, sewage disposal, water supply, hospital accommodation, and other matters of sanitary importance it is satisfactory to note that in many districts active measures are being taken which have for their end the improvement of the public health. In some districts the sanitary progress has not been satisfactory, and conditions exist which do not reflect credit on their past sanitary administration. This may

to some extent be accounted for by the insufficiency of the sanitary staff, which in some of the rural districts is quite inadequate to discharge even the most pressing sanitary requirements, but, whatever their cause, there are undoubtedly in certain districts serious sanitary defects, to remedy which should be one of the first duties of the recently appointed District Councils.

Compared with 1893, when owing to a great extent to climatic conditions unfavourable to health, the mortality statistics, both general and zymotic, for this county were extremely high, the public health of last year stands out very favourably. But just as in 1893 the high mortality was not entirely dependent on insanitary conditions, so in 1894 the relatively small number of deaths cannot be altogether attributable to the improved sanitary conditions which now obtain in many districts, as the mild spring and cold wet summer had the effect of lowering the mortality among old persons and young children quite independent of any sanitary improvements that may have been effected, though the value of many of these improvements as a means of preventing disease and reducing mortality cannot be over-estimated.

Seeing that the surroundings of the great majority of the population of the administrative county are of an urban character, the vital statistics for the past year cannot but be regarded as satisfactory, especially as influenza was prevalent during the last quarter and considerably augmented the death-rate.

The one serious blot on the county statistics is

the high mortality from enteric fever, which for several years has greatly exceeded that for the country generally. The prevalence of this disease almost entirely depends on the fouling of air, water, or food by filth containing its specific organism, and it would appear that either special conditions exist in this county favourable for the propagation and spread of the disease, or that the precautionary measures adopted are less efficient than in other parts of the country. One thing is certain, that enteric fever and insanitary conditions are very closely associated, and therefore the prevalence of that disease will depend greatly on the sanitary advancement of the county.

Sanitary Districts and Administration.

Owing to a petition having been sent to the County Council, asking that the Spennymoor urban district should be enlarged by the inclusion in its area of portions of the adjoining rural districts, an enquiry was held by the County Council on February 28th, 1894, and subsequently an order was made, which was approved by the Local Government Board, enlarging the Spennymoor urban district by the addition of the townships of Tudhoe in the Durham rural district, and of portions of the townships of Merrington and Whitworth in the Auckland rural district, and of Ferryhill in the Sedgefield rural district. The order came into force in December, 1894, and it has the effect, according to the last census, of increasing the population of Spennymoor from about 6,041 to 16,300.

By the new Local Government Act (1894),

changes have been effected in the area and population of the rural districts of Darlington and Teesdale. Formerly these unions were situated partly in Yorkshire, but by the new Act, the portions within the County of Durham have been constituted as separate sanitary districts, the Teesdale portion of the county now being known as the Barnard Castle rural district. By the changes in the areas of these districts a much needed alteration has been effected, for in future the boundaries of the registration and administrative county will be the same.

Petitions have been presented to the County Council for the formation of an Urban District at Hetton-le-Hole, in the Houghton-le-Spring Union, and at Tanfield, in the Lanchester Union. The County Council has since held enquiries into the desirability of these changes, and has lately (1895) made orders forming urban districts at Tanfield and Hetton-le-Hole.

The number of sanitary districts in the county was the same as in the previous year, as was also the number of sanitary officials. Half of the salary of 35 medical officers of health and of 39 sanitary inspectors was repaid by the County Council to the local authorities, as against 33 and 36 respectively in 1893. Of the medical officers of health of the administrative county, the deaths occurred of Dr. Mitchell, of Hebburn, and Dr. Gibbon, of Seaham Harbour, the vacancies being filled by Dr. Geo. N. Wilson and Dr. Gerald Dillon. Changes in the inspectional staff have also been made as respects Hebburn, Houghton-le-Spring, Shildon, and the Hartlepool rural district.

Population.

The population of the administrative county, estimated to the middle of 1894, was 754,494, or an increase of 10,345 as compared with the estimated population of 1893. The estimated population of the urban districts was 395,999, and of the rural districts 358,495. As to the population of the separate sanitary districts, some medical officers of health simply give the census population as the population of their district in 1894, while others form their estimate of the population from their knowledge of the trade of the district, or from the number of houses occupied. In but a few instances is the population calculated on the rate of increase during the last intercensal period, and in some cases no recognised method of calculating it appears to have been employed.

In the smaller sanitary districts an accurate estimate of the population is almost impossible, but probably the nearest approach to the true population of a small district in any intercensal year is obtained by ascertaining the number of houses occupied and multiplying this by the average number of persons occupying each house at the date of the last census.

Births.

The number of births registered was 26,663, a decrease of 795 as compared with 1893. In the urban districts the number of births was 13,489, which is equal to a birth-rate of 34·0 per 1,000 on the estimated population, while in the rural districts the births numbered 13,174, giving a birth-rate of 36·7 per 1,000. For the administrative county the birth-rate was 35·3

per 1,000 of population, as compared with 36·8 in 1893. Though the decrease in the birth-rate was considerable and occurred equally in the urban and rural districts, the birth-rate for the administrative county exceeded by 5·7 per 1,000 that for England and Wales, which was only 29·6 per 1,000, or 1·2 lower than in 1893.

The birth-rate exceeded 40 per 1,000 in the urban districts of Houghton-le-Spring (45·0) and Felling (43·7), and in the rural districts of Houghton Northern Division (40·9), and Lanchester, Lanchester Division (40·7); while the lowest birth-rates were in Barnard Castle (25·6), Stanhope (26·2), Durham (28·0), and in the rural districts of Darlington (22·0), Wear-dale (22·4), and Teesdale (28·4). Generally speaking, the birth-rate was high in the mining districts and low in the agricultural and residential parts of the county.

Deaths.

There was a very gratifying decrease in the number of deaths recorded—13,045, or 1879 less than in the previous year. For the administrative county the total death-rate was 17·2 per 1,000, which, while it exceeded the rate for England and Wales (16·6), was 2·8 lower than the rate for the County during 1893.

In the six boroughs the death-rate was only 15·8 per 1,000, or 1·4 below the county rate, and as I pointed out in my last report the lower death-rate in the boroughs is probably owing to the sanitary condition being better, and the sanitary administration more perfect than in the smaller urban and the populous portions of the rural districts. In the urban districts,

excluding the boroughs, the death-rate was 17·9 ; and in the rural districts 17·7 per 1000.

The following table compares the death-rates in the county, and in its urban and rural districts during the past five years with those for England and Wales:—

	1890.	1891.	1892.	1893.	1894.
England and Wales ..	19·5	20·2	19·0	19·2	16·6
Administrative County	20·5	20·5	18·4	20·0	17·2
Urban Districts ..	18·7	20·8	18·4	19·5	16·9
Rural Districts ..	18·9	20·1	18·5	20·5	17·7

The highest death-rates in the urban districts were 23·1 per 1,000 for Seaham Harbour, 22·3 for Southwick, and 20·7 for Felling, and in the rural districts, 20·1 for Chester-le-Street and 18·6 for Easington.

The sanitary districts in the county with the lowest death-rates were Ryton (13·1), Stanley (13·3), and Tow Law (13·8) among the urban, and Weardale, Stanhope Division (10·8), Stockton (12·2), and Teesdale, Staindrop Division (12·8) of the rural districts.

The decrease in the death-rate is chiefly attributable to the lower mortality from zymotic diseases and among young children, the result to a large extent of climatic conditions more favourable to health during the last summer than was the case in 1893.

As regards the uncertified deaths in the county, the percentage to total deaths was 4·08, which exceeded that for England and Wales by 1·58. This

large proportion of uncertified deaths is entirely the result of medical practice by unqualified persons. In the six boroughs where there are very few, if any, unqualified men carrying on an independent medical practice the percentage of uncertified to total deaths was only 1·5, but in the other urban districts it was 4·0, and in the rural districts 5·4, while in the districts where such unqualified practice is most prevalent the percentage of uncertified to total deaths was as follows : Blaydon, 15·7 ; Spennymoor, 16·6 ; Chester-le-Street Rural, 11·1 ; Durham Rural (Western Division), 16·0 ; Houghton Rural (Southern Division), 14·9.

As I stated in my report last year, medical practice by persons without a proper medical training is fraught with danger to the health of those who place themselves in their hands, as an analysis of the deaths, uncertified owing to such practice, testifies.

Infant Mortality.

There was a marked decrease in the number of deaths among children under 1 year of age, the infant mortality-rate, or deaths among children under 1 year, per 1,000 births, being only 149 as compared with 170 in 1893. In the urban districts the rate was 139, and in the rural districts 159, while for England and Wales the rate was only 137 per 1,000 births, which is considerably lower than the low rate for the administrative county.

The infant mortality-rate was highest in Southwick (211), Seaham Harbour (186), and Bishop Auckland (184) ; lowest in Benfieldside (86), Barnard

Castle (90), Hebburn (99), and in the rural districts of Weardale (84), Hartlepool (89), Darlington (93), and Stockton (98).

The decrease in the infant mortality-rate was largely due to the reduction in the number of deaths from infantile diarrhœa owing to the cold and wet summer.

It has long been recognised that insanitary surroundings, improper food, and maternal neglect or carelessness, are the chief factors in producing the high infant mortality-rate not only in this county, but especially in our larger manufacturing towns, and its reduction can only be effected by educating the working classes in the principles of domestic hygiene and by improving their sanitary surroundings.

Zymotic Diseases.

The number of deaths from the seven chief zymotic diseases was 1,617, which is equal to a zymotic death-rate of 2·1 per 1,000, as compared with 1·76 for the country generally. In 1893 the number of deaths was 2,554, and the death-rate 3·4 per 1,000, and just as in that year the high zymotic death-rate was almost entirely due to the fatal prevalence of enteric fever and diarrhœa, so during last year the decreased zymotic death-rate is wholly accounted for by the small mortality from these two diseases, as while in the third quarter of 1893 they were responsible for 1,035 deaths, in the corresponding quarter of last year they only caused 198 deaths. The districts with the highest death-rates were Southwick (4·6 per 1,000),

Seaham Harbour (4·4), and Stanhope (4·2), while on the other hand there were no deaths from zymotic diseases in the St. John's and Wolsingham divisions of the Weardale rural district, and the rate was under 1·0 per 1,000 in Stanley (0·3), Barnard Castle (0·45), Shildon (0·7), Whickham (0·8), Leadgate (0·8), and in the rural districts of Weardale (0·29), Teesdale (0·45), Hartlepool (0·84), Darlington (0·96), and Durham, Eastern Division (0·99).

In the following table the chief vital statistics of the administrative county and of its urban and rural districts are compared with those of England and Wales:

	URBAN DISTRICTS.	RURAL DISTRICTS.	ADMINISTRA- TIVE COUNTY.	ENGLAND AND WALES.
Birth-rate.. ..	34·0	36·7	35·3	29·6
Death-rate	16·9	17·7	17·2	16·6
Zymotic death-rate ..	2·0	2·2	2·1	1·76
Infant Mortality-rate ..	139	159	149	137
Small-pox	0·02	0·002	0·01	0·02
Scarlet Fever	0·13	0·22	0·18	0·16
Diphtheria and Mem- branous Croup ..	0·24	0·18	0·22	0·28
“Fever” (Enteric, Con- tinued, and Typhus)..	0·30	0·44	0·36	0·16
Measles	0·65	0·70	0·67	0·38
Whooping Cough.. ..	0·29	0·37	0·33	0·39
Diarrhoea	0·37	0·32	0·35	0·34

Small-pox.

No epidemic of this disease occurred in any district of the county during the year, though outbreaks of the disease occurred at Durham, Hartlepool, West Hartlepool, Consett, Leadgate, and the Chester-le-Street (Ouston) and the Lanchester (Medomsley) rural districts, while single cases were reported from several other districts. The number of cases reported during the year was 60, and there were only 9 deaths. Fortunately in all the districts where small-pox occurred, means of promptly isolating the cases were available, and the disease never spread to any serious extent. It appears to have been imported into West Hartlepool from abroad, and thence the infection spread to Hartlepool, while the infection was probably spread to Consett and the Medomsley district from some cases which occurred at Leadgate. Several of the reports point out the value of vaccination as a means of successfully combating this disease, a fact which is exemplified by every outbreak of small-pox.

Scarlet Fever.

As usual this disease was prevalent to a greater or less extent in nearly every district in the county, and in Stockton, Durham, and in portions of the Easington and Lanchester rural districts it assumed epidemic proportions. During the year there were 4,185 cases reported, with 136 deaths, the case mortality being 3·2 per cent. In 1893 the number of deaths was 163, and the case mortality 4·2 per cent.

The death-rate from scarlet fever in the

administrative county was 0·18 per 1,000 population, which was slightly above the rate for England and Wales (0·16). In the urban districts the rate was only 0·13, but in the rural districts it was 0·22.

The prevalence of this disease is referred to in many of the health reports, and is most usually attributed to the carelessness of parents in not properly isolating their children while suffering from the disease, or to the attendance at school of children capable of transmitting the disease. Parents in the mining districts of this county have very little dread of scarlet fever, and are, as a rule, unwilling to inconvenience themselves by taking the precautions necessary to prevent the disease from spreading. Owing to this and to the fact that in many districts no attempt is made by the sanitary authorities either to isolate the patient or to efficiently disinfect houses or clothing infected with the disease, many facilities exist for its spread, and it is not to be wondered at that the disease is practically endemic in this county. If the same precautions were adopted against scarlet fever as are enforced against small-pox the disease could be easily kept under control, and in many districts it would be entirely stamped out.

Owing to the prevalence of scarlet fever the schools were closed in several villages in the Durham rural district, and at Egglestone in the Teesdale rural district, and where this course was adopted the spread of the disease appears to have been checked.

Diphtheria and Membranous Croup.

There was a considerable decrease in the

mortality from these diseases, the number of deaths being 166, with a death-rate of 0·22 per 1·000, as compared with 239 deaths and a death-rate of 0·32 in 1893.

The death-rate from these diseases for England and Wales exceeded that for this county by 0·06 per 1,000.

The highest mortality-rates were at Tow Law, 1·09; Brandon, 0·52; and in the Auckland rural district, 0·45; but their death-rate was also somewhat marked at Stockton, 0·42; and at West Hartlepool, 0·45.

The number of cases reported during 1894 was 678, the percentage of deaths to cases being 24·4, as compared with 36·9 in 1893.

Very little information is given in the majority of the health reports as to the probable origin or cause of these diseases. In West Hartlepool the cases most commonly occurred in newly built and apparently sanitary houses. At Byers Green, in the Auckland rural district, there have been several fatal epidemics during the last few years, and their spread is attributed to the attendance at school of children suffering from the disease in a mild form, and the closing of the village schools had the effect of checking their prevalence. The cases which occurred in the Houghton urban and rural districts and in the Stockton rural district were mostly associated with insanitary conditions, such as bad drainage or dampness of the dwelling-houses.

As I stated in my last annual report, school attendance appears to be one of the chief factors in the

spread of the disease, and no children should be allowed to attend school from houses where cases of diphtheria or croup are being treated, while all children who are obviously suffering from "bad throats" should also be excluded from school.

Damp, dark houses appear under certain circumstances to be favourable for the development of diphtheria, and exposure to foul smells from drains and sewers has frequently been stated to have caused the disease.

In none of the health reports is any reference made to the use of antitoxin as a means of preventing diphtheria or of mitigating its virulence, and this apparently valuable remedy, about which so much has been recently heard, has not, it would seem, as yet been made use of by medical officers of health in this county.

Typhus Fever.

There were only 4 cases of this disease reported during the year, as against 16 in 1893. Single deaths occurred at Felling and in the rural districts of Darlington (Hurworth Place) and Stockton (Haverton Hill), but in no instance was there any spread of the disease beyond the first case notified.

Enteric or Typhoid Fever.

Although this disease never assumed the epidemic proportions of the previous year, it was nevertheless markedly prevalent in several districts, and its death-rate for the administrative county was nearly twice as high as that for England and Wales. The number of deaths during the year was 259, as compared with 447 deaths in 1893 and 131 in 1892,

but last year the case mortality (18·2 per cent.) exceeded that of the previous year (16·7), so that though enteric fever was less prevalent it was relatively more fatal. The following table gives the number of cases of enteric fever, the deaths, the case mortality and death-rate during each of the months of 1894 in this county :—

Enteric Fever in Administrative County.

	NO. OF CASES.	NO. OF DEATHS	CASE MORTALITY PER CENT.	DEATH-RATE PER 1,000 POPULATION PER ANNUM.
January	136	32	23·5	0·49
February	124	27	21·7	0·46
March	149	29	19·4	0·45
April	106	20	18·8	0·32
May	63	13	20·6	0·20
June	95	13	13·6	0·20
July	65	18	27·6	0·28
August	113	12	10·6	0·18
September	134	23	17·1	0·37
October	180	22	12·2	0·34
November	128	25	19·5	0·40
December	127	25	19·6	0·39
1894 ..	1420	259*	18·2	0·34

* This number does not agree with the total obtained by adding together the deaths from enteric fever (248) given in Tables A 1. and B 1. The above number is obtained from the monthly returns supplied to the county medical officer by the registrars, while Tables A 1. and B 1. are compiled from the reports of the district medical officers of health.

It will be seen that the maximum prevalence of the disease occurred in October, while its mortality was highest in January, owing probably to deaths occurring among persons who contracted the disease during its great prevalence in the previous autumn, and not to any conditions existing during that month which were especially favourable to the development of enteric fever. A glance at the statistics of this disease during the past three years in this county shows that both its prevalence and mortality begin to increase in August, that after October the former begins to decline, though the case mortality usually increases, and that the conditions which are favourable to the development of the disease in the late summer adversely affect both its prevalence and mortality up to at least the second month of the succeeding year.

In several districts where the disease was epidemic during 1893, it was again markedly prevalent during last year, viz., at Bishop Auckland, Southwick, and in the rural districts of Houghton, Easington, and Sunderland. The districts with the highest death-rates from enteric fever were Bishop Auckland (1·12 per 1,000 population), Benfieldside (1·08), Southwick (0·9), Spennymoor (0·8), and Willington (0·8), among the urban, and Sunderland (0·7), Houghton-le-Spring (0·6), and Easington (0·7), of the rural districts. As in 1893, the death-rate in the rural districts (0·40) greatly exceeded that for the urban districts (0·29) in the county, and in none of the six boroughs was the mortality from enteric fever excessive.

In my last report I specially adverted to the conditions which are favourable to the development of enteric fever, and the same causes operated during last year. As the disease is preventable and invariably results in the first instance from some insanitary condition affecting the purity of the air or the water or food supply,—though the fact that the disease is often spread directly by a patient suffering from it, has in the past not been sufficiently recognised,—it is evident that in many parts of this county there are defects of sanitation which do not exist in the country generally, at any rate to such a marked extent. At Malton Colliery, in the Lanchester rural district, a serious outbreak was apparently due to the drinking of polluted water, and at Bishop Auckland, Stockton, and in some of the villages in the Chester-le-Street and Sunderland rural districts the drinking of polluted water appears to have been responsible in some degree for outbreaks of the disease. At Benfieldside, Jarrow, Houghton-le-Spring, and in the Houghton, South Shields, and Sunderland rural districts outbreaks are attributed to the insanitary condition of the midden privies, to bad drainage, or to filth accumulations, while the prevalence of the disease in Shildon and in the Easington rural district is partly accounted for by the practice of putting the undisinfected excreta of patients suffering from enteric fever into the ash-pits.

The medical officer of health for the Sunderland rural district suggests that the disease is sometimes spread by infected dust from the contents of midden-

privies being carried into the open reservoirs used for storing drinking water, which are frequently placed in proximity to centres of population; and in fact in nearly all the health reports the cause of enteric fever is attributed to the existence of insanitary conditions, which have long been recognised as such, and to remove which every endeavour should be made.

It is to be regretted that even in those districts provided with isolation hospital accommodation very little effort is as a rule made to secure the proper isolation of patients suffering from enteric fever, for proper and careful nursing is most essential to ensure recovery from the disease, and complete disinfection of the excreta and soiled clothing of the patient, which it is frequently impossible to carry out at home, is most necessary to prevent its spread.

In the following districts there were no deaths from enteric fever during the year :—Blaydon, Consett, Stanley, Whickham, and the rural districts of Hartlepool and Teesdale.

Continued Fever.

The districts in which the highest mortality from this disease occurred were mostly those in which enteric fever was also prevalent. Of the 16 deaths which occurred during the year 11 were in the rural districts of Easington, Houghton, and Sunderland, and probably most of the deaths attributed to this disease were really from enteric fever. The number of cases of continued fever notified during the year was 223, as compared with 396 in 1893. The seasonal prevalence

of the disease coincided generally with that of enteric fever, and its incidence was much more marked in the Easington rural district (108 cases) than in any other district in the county.

Puerperal Fever.

The number of cases of this disease reported during the year was 90, and there were 41 deaths, giving a case mortality of 45·5 per cent. The number of cases of, and deaths from, this disease reported cannot, however, be taken as an accurate record of the number actually occurring, for it is probable that in many instances the cases are only reported when a fatal termination of the disease is likely, while deaths which are registered as being due to puerperal peritonitis; puerperal septicæmia; child birth, peritonitis; etc., should also be included almost invariably among the mortality from puerperal fever. If that were done, the number of deaths in the county from that disease during the year would be raised to 70. The mortality from puerperal fever was most marked in Brandon, Southwick, and in the Durham, Easington, and Lancaster rural districts.

Erysipelas.

The number of cases notified during the year was 1,025, as compared with 867 in 1893. In some districts there were more cases of erysipelas reported than of any other notifiable disease, and it is doubtful if many of the cases notified as erysipelas are really of an infectious nature. The number of deaths registered from the disease was 50, as against 45 in 1893.

Measles.

There were 512 deaths from measles in the administrative county, as compared with 284 in 1893 and 591 in 1892. The death-rate for last year was 0·67 per 1,000, and greatly exceeded that for England and Wales (0·38). It has been noted in many sanitary districts that measles attains a maximum prevalence every two years, and during the last four years a similar biennial prevalence is noticeable in the administrative county as a whole, for during 1892 and 1894 the mortality from measles was excessive, while in 1891 and 1893 it was comparatively small. It is rather curious that the highest mortality from measles during the year was in the summer months, when the risk of lung complications following an attack of the disease is comparatively small. The disease was especially fatal in Hebburn, Felling, Seaham Harbour, Southwick, and in the Auckland (Crook) and Chester-le-Street rural districts. Measles is no longer compulsorily notifiable in any part of the county, it having been withdrawn from the list of notifiable diseases in Barnard Castle during the year. Notification of measles has been tried in Darlington, Jarrow, Barnard Castle, and the Darlington rural district, but apparently it had but little effect in reducing either the prevalence of, or the mortality from, the disease. Owing to its epidemic prevalence the schools were closed at Stockton, Felling, Hebburn, and in several villages in the rural districts of Chester-le-Street, Houghton, Lanchester, Sedgefield, and Stockton, with the result

that in most places the spread of the disease was checked.

Whooping Cough.

251 deaths, or 3 less than in 1893, were registered from this disease, the death-rate for the county being 0·33, while for England and Wales it was 0·39. The mortality from whooping cough was especially high in the adjoining towns of Jarrow and Hebburn, as was also the case in 1893, and it was also rather fatal in Seaham Harbour and the Lanchester District.

Diarrhœa.

There was a very marked decrease in the mortality from diarrhœa, only 265 deaths being registered as compared with 1,096 in 1893, while in each of the months of August and September of that year there were more deaths than occurred during the whole of last year. The death-rate from diarrhœa in the administrative county last year was 0·35 per 1,000, as compared with 0·34 for England and Wales. The sanitary districts with the highest mortality from the disease were Southwick (1·08 per 1,000), Seaham Harbour (0·8), Whickham (0·7), and Blaydon (0·7), but while in 1893 the death-rate from diarrhœa exceeded 1·0 per 1,000 population in 31 districts in the county, last year this rate was only exceeded in one district (Southwick). The decrease in its mortality last year throughout the county is almost entirely the result of the cold, wet summer, there being a direct relation between the temperature of the air and earth, and the prevalence of summer diarrhœa. It has been frequently observed

that so long as the temperature of the earth, 4 feet below the surface of the ground does not exceed 56° F., the mortality from summer diarrhœa is not marked, and it is doubtful if the temperature of the earth at that level, at any time during last summer, much exceeded 56° F. While a high mortality from summer diarrhœa is strong evidence of the existence of insanitary conditions, such as a polluted subsoil, filth accumulations, etc., a low mortality from that disease by no means indicates the reverse; for while insanitary environment predisposes to summer diarrhœa among young children, the chief exciting factor is a certain degree of temperature, and unless this be attained the disease rarely becomes very prevalent.

Infectious Diseases Notification Act.

At the end of 1893, this important Act had been adopted throughout the county, except in the following six districts :—

URBAN.	RURAL.
Bishop Auckland.	Auckland.
Southwick.	Teesdale.
Stanhope.	Weardale.

The protection afforded by this Act against the spread of preventable disease had not been taken advantage of by any of the sanitary authorities of the above-mentioned districts up to the end of last year, but the Act has since been adopted by the Auckland District Council, and will come into force on July 1st of this year, after which date the population of the districts in

which notification is not compulsory will be reduced to about 43,000, or a little more than one-twentieth of the total population of the county. In those districts where compulsory notification is not enforced the sanitary authorities are, as it were, fighting in the dark against the spread of some of the most dangerous infectious diseases, and it is to be hoped that very shortly every District Council in the county will have adopted the Act. The cost of notification during last year was £1 7s. 9d. per 1,000 population of the districts in which the Act was in operation, as compared with £1 11s. 4d. in 1893 and £1 2s. 7d. in 1892.

Isolation Hospital Accommodation.

Since the Isolation Hospitals Act, which gives power to County Councils to cause isolation hospitals to be erected in districts (excluding boroughs) where the local authorities are unable or unwilling to provide "suitable" accommodation, came into force at the end of 1893, action has been taken by several sanitary authorities towards meeting the requirements of their districts in this respect.

At Seaham Harbour, one ward (4 beds) of a permanent hospital, together with an administrative block, has been completed, and another ward is to be erected as soon as possible. The Lanchester Joint Hospital Board are erecting a permanent brick hospital at Langley Park, and intend subsequently to erect a similar hospital for the Stanley portion of their district. The Sunderland Rural Authority more than a

year ago selected a suitable site for the erection of a permanent hospital, but the Local Government Board have not yet consented to grant a loan for that purpose. Sites have been obtained at Felling and Whickham for the erection of hospitals, but that selected for the latter place is quite unsuitable.

The Auckland Rural District Council are conferring with several of the adjoining urban district councils, with the object of combining with them for the erection of the hospital accommodation necessary for the several districts, and similar action is being taken by the Stanhope, Weardale, and Tow Law; by the Southwick and South Shields; and by the Spennymoor District Councils. In some districts without any isolation hospital, no definite action appears to have been taken, and the same remark applies to several districts provided with hospitals, which are, however, quite inadequate for their requirements. Without doubt there should be suitable hospitals for isolating cases of infectious diseases available for every district in the county, and the County Council should exercise its powers under the Isolation Hospitals Act to this end. Hospitals built of wood or of wood and corrugated iron cannot in my opinion be considered "*suitable*" for isolating cases of infectious disease, in fact no isolation hospital should be considered by the County Council as affording "*suitable*" accommodation unless it meets in all its more important particulars, the requirements of the Local Government Board as set forth in the memorandum of that Board on the subject. In every

isolation hospital there should be at least provision made for isolating patients of both sexes suffering from two different diseases, and for this purpose not less than four wards are required, each of which should be capable of accommodating at least 4 patients, allowing 2,000 cubic feet of air per patient. The erection of such a permanent hospital would be a heavy expense to the smaller sanitary districts, and as the cost of construction and administration per bed varies inversely with the size of the hospital, it is manifestly desirable that, wherever possible, neighbouring sanitary districts should combine for the purpose of providing the hospital accommodation necessary for their districts. In connection with this matter it should be remembered that, provided he is in a fit state to be removed, there is no danger to the life of the patient in conveying him in a proper ambulance to a hospital 5 or 6 miles distant from his residence.

637 cases, or 8·8 per cent. of the cases notified in districts where means of isolating them are provided, were removed to hospital, as compared with 11·7 per cent. in 1893. As in previous years, a much larger proportion of the notified cases were removed to hospital in the boroughs than in the other urban or the rural districts of the county.

Water Supply.

The waterworks which for some years have been in course of construction for supplying Stockton, Middlesbrough, and adjoining districts with a pure supply of water have now been completed, and in

future these districts will not have to depend for their water supply on a river, which is still polluted more or less directly by a considerable amount of sewage and other impurities. The new mains pass in close proximity to several villages which at present obtain their water supply from shallow wells, and from a sanitary standpoint the new water supply might with advantage be distributed through these villages.

An enquiry was held by one of the inspectors of the Local Government Board in May of last year into the alleged pollution of the water supply at Bishop Auckland, which is at present obtained from the river Wear. Although more than a year has now elapsed since the holding of the enquiry, no definite action has yet been taken by the Board, who are still giving the matter their consideration. The river Wear is much polluted by sewage above the intake of the water supply for Bishop Auckland, and as probably the most frequent cause of outbreaks of enteric fever is the use for domestic purposes of sewage polluted water, it is significant that the death-rate from that disease in Bishop Auckland last year much exceeded that of any other sanitary district in the county, while for several years past the average mortality from enteric fever in that town has been very high.

The water supply to Silksworth village, in the Sunderland rural district, has been found on analysis to receive intermittent pollution. The water is pumped from a shaft at the colliery there, but the source of the contamination has not yet been determined.

At Malton Colliery, in the Lanchester rural district, an outbreak of enteric fever was probably caused by the pollution of the water supply, and a purer supply is to be provided as soon as possible. Lanchester village and other portions of the Lanchester rural district have during the year been supplied with pure water, and arrangements have been made for supplying the villages of High Usworth, Eighton Banks, and Springwell, in the Chester-le-Street rural district, with water from the Newcastle Water Company. At the village of Fatfield, in the last-named district, enteric fever was prevalent during the year, and the water supply is obtained from wells or runners which are liable to pollution, while the water supplied to part of Chester-le-Street village is also obtained from an impure source.

There are still several villages in the Easington and Auckland rural districts without a proper water supply, but to some of them arrangements have been made for conveying water in carts, and in several instances the laying down of a permanent supply has been decided upon, or is under consideration.

There appears to have been no scarcity of water during last year in those districts which suffered so much in this respect from the drought in 1893.

Housing of the Working Classes.

In several districts during the past year a great deal has been done with the object of improving the dwellings and bettering the sanitary surroundings of the working classes. The action taken by the

County Council under the Housing of the Working Classes Act has been of great value, for not only have 262 houses unfit for habitation been closed or put into a sanitary condition during the past year as a direct result of the County Council exercising its powers, but as a result of such action, many sanitary authorities have had their attention drawn to the powers and duties bestowed on them by that Act, and are now honestly endeavouring to carry them out. One of the greatest difficulties in the way of closing insanitary houses lies in the great want of house accommodation in many districts. In a number of the villages I have inspected, houses are inhabited which are unfit for habitation, but owing to the scarcity of houses, closing those which are insanitary would only have the effect of driving the occupants into houses already often overcrowded, or out of the district altogether, thereby causing considerable hardship. In part III. of the Housing of the Working Classes Act power is given to rural sanitary authorities, with the consent of the County Council, to erect or cause to be erected workmen's dwellings in such portions of their districts as they are needed, but up to the present no application has been made to the County Council under this part of the Act, though it might advantageously be adopted in certain districts in this county.

Wherever workmen's dwellings are being erected they are usually airy and of good sanitary construction, and throughout the county much attention is now being given to the proper spouting of the houses,

want of which frequently causes dampness of the foundations and walls.

Excrement Disposal.

In several districts considerable progress has been made in abolishing the old offensive midden-privies and replacing them by either water-closets or small ash-closets, which are much more sanitary and if properly constructed practically free from nuisance.

The medical officer of health of the Stockton rural district speaks in high terms of the advantages of the small ash-closet over the old-fashioned midden-privy, and the Sunderland Rural Authority have decided to insist on the plan of ash-closet recommended by the County Council, for all new buildings erected in their district, wherever a dry system of excrement disposal is desired. Many of the health reports refer to the serious nuisances resulting from the midden-privies being large, open, leaking, uncovered, and frequently in too near proximity to dwelling-houses, and without doubt these insanitary structures are a serious danger to the health of those living in their proximity. In many of the rural districts a large number of houses which were previously without any means of excrement disposal have now been provided with privy accommodation. At Brickgarth, in the Houghton Union, ash-closets are being provided for each house, but in some villages the conveniences which have been erected are, neither as regards position nor construction, satisfactory, and are moreover frequently erected in contravention of the bye-laws of the district.

Scavenging and Refuse Removal.

Much more attention is being given by sanitary authorities in the county to this important matter than was formerly the case, and in several districts where the cleansing of ashpits and the removal of house refuse was formerly left to the owner or occupiers of the houses, the local authorities have now themselves either undertaken or contracted for the work being done. In some districts, however, there is still much room for improvement, and several of the health reports refer to nuisances frequently resulting from want of systematic scavenging. In the reports for Consett, Leadgate, Benfieldside, and the Auckland and Sedgefield rural districts, the medical officer of health urges that the local authority should themselves undertake the scavenging, and in several places in the Easington, Houghton (Southern), South Shields, and Sunderland rural districts the removal of refuse is not satisfactorily performed. A Local Government Board enquiry was held during the year as regards the scavenging and removal of house refuse in the Durham rural district, and subsequently an order was made by that Board on the Durham Rural Sanitary Authority requiring them to undertake that work in most of the more populous townships in their district.

Complaint has been made to the Local Government Board by the County Council respecting the want of a proper system of scavenging and removal of house refuse in the Felling urban and the Auckland rural districts.

River Pollution.

Owing to the action of the County Council many of the sanitary authorities have been stimulated to take action to prevent the pollution of rivers and water-courses, more especially with regard to the rivers Wear and Tees and their tributaries. Since the appointment by the County Council of a sanitary inspector in April of last year the river Tees and part of the Wear have been systematically inspected, and notices have been served on the sanitary authorities who were found to be discharging sewage, etc., into these rivers, calling upon them to take steps to prevent such pollution. The urban authorities of Durham, Willington, Bishop Auckland, and Barnard Castle are all considering schemes for properly disposing of their sewage, as are also most of the rural authorities who are at present permitting the sewage from their districts to pollute these rivers. Legal proceedings to enforce the provisions of the Rivers Pollution Acts have been taken by the County Council against the urban authorities of Durham and Barnard Castle, but the cases were adjourned.

Works for the disposal of sewage by subsidence and artificial filtration have been completed for Spenny-moor and for Etherley Dene in the Auckland Union, and are in course of construction for Benfieldside, the Annfield Plain and Kyo districts in the Lanchester Union, and Croxdale district in the Durham Union. The sewage works at Coundon, on the same principle, have not been working satisfactorily owing probably to

the fact that more sewage is brought to the works than can be possibly dealt with by the existing tanks and filters. The local authorities of the Blaydon and Stanley urban, and the Auckland, Chester-le-Street, Durham, and Lanchester rural districts have each under consideration schemes for disposing of the sewage of various portions of their districts, and it is to be hoped there will be no unnecessary delay in proceeding with them, as in not only these, but in many other districts in the county, the existing means of sewage disposal are often eminently unsatisfactory.

Work of Inspectors of Nuisances.

At the end of this report the returns of work done by the inspectors of nuisances are summarized, and a glance at the tables will show that in many districts much excellent work has been effected by these officers. In some districts, however, no formal notices under the Public Health Acts appear to have been served by order of the sanitary authority, though it can hardly be that there are no insanitary conditions in those districts which require any formal action by the local authority, and the fact that no statutory notices have been served suggests that the sanitary administration of the districts in question is not as efficient as is desirable.

Some of the returns forwarded by the inspectors indicate that the compilers do not keep a systematic record of their sanitary work, which it is most necessary should be done, if a sanitary inspector is to properly discharge his duties. No returns were re-

ceived from the inspectors of nuisances for the Stanhope and Southwick urban and the South Shields rural districts, though it is difficult to understand what objection the local authorities of the two last named districts can have to their officer giving the information required for the tables.

Cowsheds, Dairies, and Milkshops.

Many of the health reports make no reference to the sanitary condition of the cowsheds, dairies, and milkshops, and in some districts they appear to be neither registered nor systematically inspected. Milk is such an important article of food and is so easily capable of infection that a proper supervision of all places where milk is stored or sold should be carried out in every sanitary district. There should also be in force as regards the cowsheds in every district regulations as to lighting, cleansing, and the minimum amount of cubic air space per cow, and a register should be kept by every local authority of all cowsheds, dairies, and milkshops in their district.

Slaughter-houses.

In the majority of districts there are no regulations in force as to the management of slaughter-houses, and little or no supervision is exercised over the meat supply. At West Hartlepool new public slaughter-houses are in course of construction, but in nearly all other parts of the administrative county the slaughtering of animals for food is effected on private premises, which are neither licensed nor registered.

Bye-laws.

Sanitary and building bye-laws have been adopted by the Chester-le-Street rural authority, and came into force at the beginning of the present year. I am not aware that in any other district in the county new bye-laws have been adopted, though, as I stated in my last report, some districts are without sanitary bye-laws of any kind, while for many others the bye-laws are out of date, and not in accordance with modern sanitary requirements. Unfortunately in some districts where modern bye-laws have been adopted they have not been enforced.

My best thanks are again due to the medical officers of health throughout the county who, as in previous years, have always been ready to give me their assistance, which has rendered my work both easier and more pleasant. I am also similarly indebted to many of the district sanitary inspectors, and have received great assistance in my work from Mr. Robinson, the county inspector, who has more than justified his appointment. I have also to thank the members of the County Council, and especially of the Health Committee, for the courtesy and consideration I have invariably received at their hands.

I remain, Mr. Chairman and Gentlemen,

Your obedient Servant,

T. EUSTACE HILL.

June, 1895.

TABLE SHEWING THE NUMBER OF BIRTHS, DEATHS, AND DEATHS FROM THE CHIEF
ZYMOTIC DISEASES IN THE ADMINISTRATIVE COUNTY OF DURHAM,

DURING EACH OF THE MONTHS OF 1894.

	Births.	Deaths.	Deaths under 1 year.	Total Zymotic Deaths.	Small-pox.	Scarlet Fever.	Diphtheria and Mem- branous Group.	Fevers. (Enteric, Continued, & Typhus.	Measles.	Whooping Cough.	Diarrhoea.
JANUARY	1093	278	128	2	4	23	34	32	27	6
FEBRUARY	1081	318	112	1	15	21	27	15	21	12
MARCH	1108	293	122	...	15	16	34	38	13	6
APRIL	1130	318	119	1	16	8	23	49	13	9
MAY	1092	301	134	...	9	16	14	61	21	13
JUNE	908	270	125	...	6	9	14	63	16	17
JULY	957	287	137	...	5	8	19	58	20	27
AUGUST	1015	350	174	3	9	8	13	45	26	70
SEPTEMBER	956	318	132	...	8	14	23	26	15	46
OCTOBER	1112	347	145	2	18	17	24	36	16	32
NOVEMBER	1190	426	126	...	16	14	28	27	27	14
DECEMBER	1403	476	163	...	15	12	25	62	36	13

CHART SHOWING NUMBER OF DEATHS DURING EACH MONTH OF 1894, FROM TOTAL ZYMOTIC DISEASES AND FROM ENTERIC AND CONTINUED FEVERS AND DIARRHOEA, IN THE ADMINISTRATIVE COUNTY OF DURHAM.

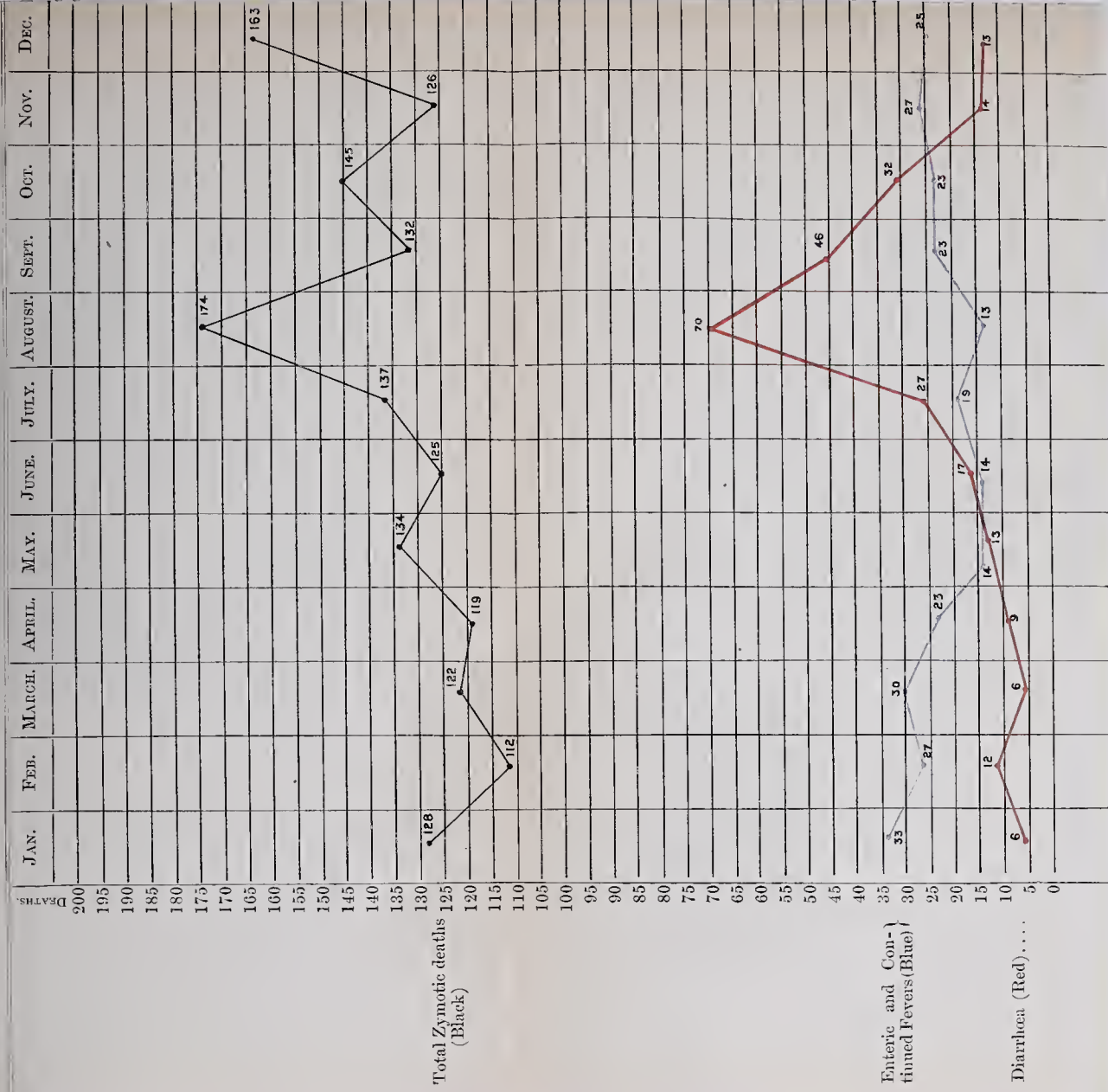
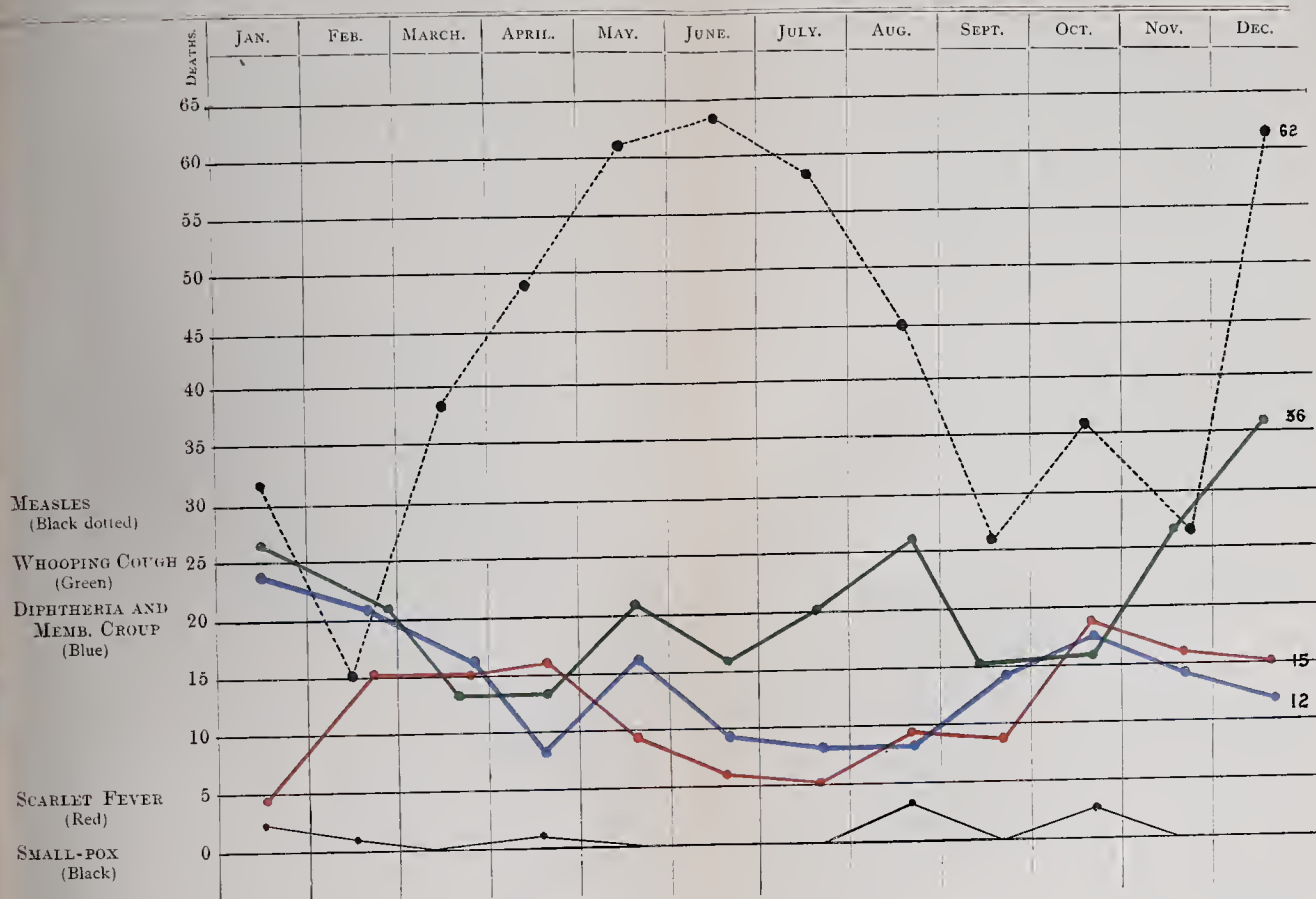


CHART SHOWING THE NUMBER OF DEATHS DURING EACH MONTH OF 1894 FROM
SMALL-POX, SCARLET FEVER, DIPHTHERIA, MEASLES, AND WHOOPING COUGH,
IN THE ADMINISTRATIVE COUNTY OF DURHAM.



BOROUGH.

DARLINGTON.

JAMES LAWRENCE, M.D., Medical Officer of Health.

Area in Acres, 3,945. Estimated Population, 1894, 39,500.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
31·4	14·5	1·3	118

Phthisis death-rate, 1·0; Respiratory diseases death-rate, 2·3. All the above rates are extremely low and very satisfactory.

Infectious Diseases.

152 cases were notified as compared with 295 in the previous year, and include 54 of scarlet fever and 53 of enteric fever. There were 13 cases of diphtheria and croup notified, of which no fewer than 10 proved fatal—an extremely high case mortality. Dr. Lawrence points out that though diphtheria has of late years become more prevalent in the country generally, at Darlington it has decreased as the sanitary condition of the town has improved. Enteric fever caused 9 deaths, diarrhoea 8, measles 20, and whooping cough 5. 55 cases were removed to hospital, including nearly one-half of those notified as suffering from enteric and scarlet fevers.

General Sanitation.

A great deal of work has been thrown on the

sanitary staff in carrying out the provisions of the recent Factory and Workshops Act, but the bye-laws in connection with it have been satisfactorily observed. The dairies and cowsheds are reported to be generally much improved since the adoption of the new bye-laws, while the slaughterhouses and bakehouses have been kept in good condition. Two prosecutions for selling unsound meat were instituted, and in both instances successfully, very heavy fines being inflicted. Under the Food and Drugs Act 6 samples of milk were taken for analysis, but they were all certified to be free from adulteration.

724 notices were served for the abatement of nuisances, and during the year a good deal of sanitary work was accomplished, especially with regard to the paving of house yards and the substitution of water-closets for insanitary midden privies. Dr. Lawrence points out that if water-closets were substituted for privies, the death-rate from both enteric fever and diarrhoea would be likely to decrease, and referring to the large open ashpits in the town, he says:—"Put
 "the ashpits in proper order, and you will still further
 "diminish your death-rate, and you will relieve your
 "sewers from being a nursery for decomposing germs
 "and odours."

Sanitary Requirements.

The carrying out of the recommendations made in the report as to the present system of excrement and house refuse removal,

DURHAM.

A. M. VANN, M.R.C.S., Medical Officer of Health.

Area in Acres, 880. Estimated Population, 1894, 15,000.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
-------------	-------------	---------------------	------------------------

28·0

19·4

2·2

130

Phthisis death-rate, 2·0 ; Respiratory diseases death-rate, 5·2. The general death-rate was about the same as in 1893, but the zymotic death-rate was much higher, while that from respiratory diseases was again very high.

Infectious Diseases.

The number of cases notified was 161, or 40 more than in the previous twelve months. The most prevalent and fatal disease was scarlet fever with 80 cases and 11 deaths, the district most free from the disease being Gilesgate. Only 6 cases of diphtheria and membranous croup were notified, but all these, with one exception, proved fatal. There were 32 cases of enteric fever with 3 deaths, while measles caused 7 deaths, whooping cough 4, and diarrhoea 3. Four cases of small-pox occurred in June, but they were all isolated in hospital and other precautions taken, with the result that there was no further spread of the disease. The Sanitary Authority undertakes the disinfecting of houses where cases of infectious disease have occurred. The report strongly urges that a steam disinfecting apparatus should be provided.

General Sanitation.

A large number of insanitary midden privies have been replaced by water-closets during the year,

while many others are stated to have been repaired or rebuilt on a better model. The paving and cementing of the yards and passages of the poorer parts of the town are also being proceeded with, and this should greatly improve the sanitary surroundings of the houses. In June the town was inspected by one of the medical inspectors of the Local Government Board, who afterwards presented a report indicating the measures to be adopted in the case of an outbreak of cholera, and making recommendations for the improvement of the sanitary condition of the city.

The common lodging-houses have been frequently inspected, and various improvements made to them with regard to yard paving, privy accommodation, &c. The cowsheds (22 in number) and slaughter-houses have for the most part been kept in good condition.

Sanitary Requirements.

The provision of a proper steam disinfecting apparatus.

HARTLEPOOL.

J. RAWLINGS, M.R.C.S., Medical Officer of Health.

Area in Acres, 552. Estimated Population, 1894, 23,000.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
34·2	17·7	2·04	137

Phthisis death-rate, 1·5 ; Respiratory diseases death-rate, 3·3. The above rates are satisfactory, the birth and death-rates being slightly below and the zymotic and infant mortality rates a little above those of the previous year.

Infectious Diseases.

Only 62 cases were notified which is 22 less than in 1893, and a very small number when the size of the town is considered. The most fatal diseases were measles, which was epidemic during June and July, causing 19 deaths, and diarrhœa with 10 deaths. An outbreak of small-pox occurred in September (8 cases) and the infection was probably imported from West Hartlepool, though no definite information could be obtained on this point. The cases were all removed to hospital and every precaution taken against the spread of the disease. Only two of the patients were unvaccinated, and one of these died.

General Sanitation.

150 notices for the abatement of nuisances were issued by order of the Sanitary Authority, and in 21 instances prosecutions were instituted. 8 houses were closed during the year as unfit for habitation, but after being properly repaired were again allowed to be occupied.

144 privies and 81 ash-pits were abolished and in their place 192 water-closets substituted, while many improvements have been effected in the trapping, disconnection, and relaying of drains. The new drainage scheme for the Middleton Ward was completed during the year, "and I have every confidence "that a lasting benefit has been conferred upon this "portion of the town." The licenses of three common lodging-houses were cancelled during the year.

Sanitary Requirements.

Dr. Rawlings specially refers to the isolation hospital and says "that in my opinion it is not "suitable for the purposes for which it is intended." After pointing out that there should be accommodation for persons of both sexes suffering from three different diseases, and that there should also be two small observation wards, he says "I consider that at least "two more acres of land should be obtained, as at the "present time one case of small-pox prevents me from "sending any other cases suffering from other diseases "into the hospital."

JARROW-ON-TYNE.

J. M. NICOLL, M.B., Medical Officer of Health.

Area in Acres, 728. Estimated Population, 1894, 35,860.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
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30·5

15·5

2·17

144

Phthisis death-rate, 1·9 ; Respiratory diseases death-rate, 2·9. The estimated population is given as the same as the previous year, and judging by the number of empty houses in the borough, and the exceptionally low birth and death-rates, the medical officer of health thinks that even this estimate may be too high. The rate of increase of the town has very much decreased of late years owing to the bad state of trade. The death-rate for the year was the lowest on record, but both the general mortality and that among infants were highest in the North Ward of the town, and are attributed to the carelessness and negligence of the parents.

Infectious Diseases.

The zymotic death-rate was much below the average of previous years, by far the most fatal disease being whooping cough, which caused a large mortality during the first two months of the year. Measles caused 12 deaths, nearly all of them occurring in the first quarter. There were only 13 deaths from diarrhœa, and the death-rate from this disease was the lowest ever recorded in the borough.

Of the notifiable diseases 228 cases were reported, or less than half the number of the previous year. These included 112 of scarlet fever (6 deaths), 37 of enteric fever (7 deaths), and 26 of diphtheria (7 deaths). One case of small-pox was notified in March, the patient being a seaman, who imported the disease from abroad. Defective house drains and insanitary midden-privies are referred to as the probable cause of many of the cases of enteric fever, but none of the cases of diphtheria could be assigned to any definite cause. 79 cases were removed to the isolation hospital during the year, and of these only 3 died. The report recommends that the floors of the wards be stained and varnished, and points out the need of a disinfectant.

General Sanitation.

Special attention is drawn in the report to the "very defective and dilapidated condition" of some property at the Old Church, which appears to be very insanitary. 72 midden privies have been replaced by improved ash-closets, and in future the refuse of the town is to be disposed of at sea. 746 notices were

served by the inspector of nuisances, and several prosecutions for the exposure of infected persons under the Public Health Amendment Act were instituted. 47 samples were taken for analysis under the Food and Drugs Act, and 5 of these were found to be adulterated and the vendors prosecuted.

Sanitary Requirements.

1. A steam disinfecting apparatus, and the improvement in the wards of the hospital, as suggested in the report.

2. The remedying of the insanitary conditions of the property at the Old Church.

STOCKTON.

J. HAGUE CLEGG, M.R.C.S., Medical Officer of Health.

Area in Acres, 2,848. Estimated Population, 1894, 50,000.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality Rate.
32·7	16·7	1·92	131

Phthisis death-rate, 1·8 ; Respiratory diseases death-rate, 2·36. The death-rate and zymotic death-rate are the same as in 1893, but the infant mortality-rate is considerably lower.

Infectious Diseases.

676 cases were notified, or more than double the number reported in the previous year. This increase was entirely due to the epidemic prevalence of scarlet fever, for while in 1893 only 86 cases with no deaths were notified, during the past year there were 527 cases with 18 deaths. The disease was generally of a very mild type, which greatly assisted

in the spread of the disease, no doctor frequently being called in, and “after a day or two the child has been allowed to mix with others ere free from infection.” 208 of the cases were removed to hospital and nearly all the houses where cases occurred were, together with the bedding, &c., carefully disinfected by the sanitary inspector. Of the 91 cases of enteric fever, 46 occurred in the first quarter, and the medical officer of health thinks that the disease resulted from the drinking of polluted water and not from either drainage or insanitary surroundings. An epidemic of measles broke out in March, and several of the schools were closed in consequence. The disease caused 38 deaths. There were 21 deaths from diphtheria and membranous croup, the case mortality from these diseases being very high (75·7 per cent.), but there were only 9 deaths from diarrhœa during the whole year. There was only one case of small-pox reported, which was at once removed to the Middlesbro’ hospital. The Middlesbro’ Corporation however decline to take any more small-pox cases from Stockton, and the medical officer of health says :—“I would advise the Authority “to consider most carefully what action they will adopt “for the reception of patients suffering from this disease.”

General Sanitation.

A considerable quantity of unsound food was destroyed during the year, but no legal proceedings were taken. The desirability of providing public abattoirs is pointed out. The scavenging has been well attended to, but a more frequent removal of night-

soil, at least once a fortnight, is recommended. For the carrying out of the Factory and Workshops Act it is urged that an inspector be employed to devote the whole of his time to the inspection of the workshops, &c., in the borough.

Appended is a comprehensive report by the sanitary inspector which shows among other things that 3,498 nuisances have been abated.

Sanitary Requirements.

1. The provision of accommodation for the isolation of cases of small-pox.
2. A public abattoir.
3. The removal of nightsoil and house refuse from houses at least once a fortnight.

WEST HARTLEPOOL.

S. GOURLEY, M.D., Medical Officer of Health.

Area in Acres, 2,454. Estimated Population, 1894, 48,195.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
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34·2

14·5

1·72

126

Phthisis death-rate, 1·2 ; Respiratory diseases death-rate, 2·8. There is a further decline in the birth-rate, but all the above death-rates are very satisfactory and compare favourably with those of the previous year.

Infectious Diseases.

178 cases, or 45 less than in 1893, were notified, and there was no marked increase in the prevalence of these diseases except diphtheria and membranous croup. 40 cases of these diseases were

reported, 22 of which proved fatal—a very high rate of mortality. Dr. Gourley states that most of the cases occurred in the newest and cleanest houses where no sanitary defects were discoverable, and he is unable to assign any cause for their prevalence.

In July there was an outbreak of small-pox (11 cases with 5 deaths.) The origin of the infection could not be traced, but it is interesting to note that none of the 5 fatal cases showed any marks of previous vaccination.

26 cases were removed to the Port Sanitary Hospital for treatment, which is a very small proportion of the cases notified.

General Sanitation.

The quality and quantity of the public water supply have both been satisfactory. Of 20 samples of well waters analysed 18 were found to be impure, and in 14 instances the wells were closed by order and 4 remain to be dealt with. Several cases of typhoid fever resulted from the drinking of the water from such polluted wells.

New public slaughter-houses are in course of erection, and Dr. Gourley says that “when completed
“we shall be ahead of most towns and will be in a
“position to ensure that only wholesome meat is
“slaughtered and sold to the public. When we know
“that 17 carcasses were condemned in consequence of
“extensive tuberculosis, at the old slaughter-house
“during the past year; and that owing to various

“reasons a great deal of private slaughtering has been going on, it must be evident that the only safe plan is to have all beasts slaughtered at a central suitable place, where each can be inspected when slaughtered, and where all the internal organs can be seen.” The sewerage survey which has been nearly completed seems to point to the necessity of an extensive new sewerage system at no distant date.”

The common lodging-houses require constant inspection to keep them sanitary, and the Health Committee is strongly urged not to grant licenses to any more, unless the houses are built for that particular purpose.

60 samples were taken under the Food and Drugs Act, and of these 2 were found to be adulterated and 3 were of doubtful quality. Attention is called in the report to smoke nuisances caused by certain chimneys.

From the sanitary inspector's report, which is appended, it appears that notices have been served for the abatement of 1,609 nuisances, and that the bakehouses, milkshops, cowsheds, workshops, &c., have all received the required attention. There were 5 separate outbreaks of swine fever during the year.

Sanitary Requirements.

None specially mentioned.

The report includes a map of the town showing the locality of the deaths from zymotic diseases, and also fever and rainfall charts.

URBAN DISTRICTS.

BARNARD CASTLE.*

ALFRED H. SEVIER, M.B., Medical Officer of Health.

Area in Acres, 533. Estimated Population, 1894, 4,341.

Birth-rate. Death-rate. Zymotic death-rate. Infant Mortality-rate.

25·5 17·04 0·45 90

Phthisis death-rate, 2·0; Respiratory diseases death-rate, 4·1. The above death-rates are very much lower than in 1893, the zymotic and infant mortality rates being especially low.

Infectious Diseases.

Only 6 cases were notified during the whole year as compared with 111 in the previous twelve months, and the district was entirely free from small-pox, scarlet fever, and typhoid and continued fevers. The only deaths registered were one each from membranous croup and whooping cough, and there was also one from puerperal fever, but this disease is not included among the seven chief zymotic diseases.

By a resolution of the Sanitary Authority, measles has been withdrawn from the list of diseases to be notified.

Whooping cough was prevalent in the poorer parts of the town during the year, but there was almost a complete absence of diarrhœa.

General Sanitation.

“The sanitary condition of the town is fairly satisfactory.”

* The vital statistics are calculated on the last census population, and in the calculation of the death-rate, &c., the deaths in the town of 11 persons not belonging to Barnard Castle are excluded.

The common lodging-houses and slaughter-houses are said to have been kept under proper supervision, and no action was called for during the year with regard to offensive trades, factories, and workshops.

A new and extensive drainage scheme is under consideration, and "it is proposed to establish a sewage "farm, and there treat the sewage in such a manner "that the alleged contamination of the Tees water from "Barnard Castle will be an impossibility."

Sanitary Requirements.

No reference made to any.

BENFIELDSIDE.

GEORGE RENTON, M.D., Medical Officer of Health.

Area in Acres, 1,525. Estimated Population, 1894, 6,470.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
32·1	15·6	1·8	86

Phthisis death-rate, 2·1 ; Respiratory diseases death-rate, 3·5. The mortality statistics show a very marked improvement when compared with the previous year, and this remark especially applies to the deaths among young children.

Infectious Diseases.

The notified cases numbered 63, and included 24 of enteric fever and 26 of erysipelas. There was only one case of small-pox, which was at once removed to hospital. The report specially refers to the prevalence of enteric fever in the town, and Dr. Renton says "from the fact of 24 cases of enteric occurring, "and at seasons of the year unfavourable to its develop-

“ment, strong evidence is afforded of there being some
 “serious sanitary defect in the several parts of the
 “district where these cases arose.....I made
 “an urgent appeal to your Sanitary Committee to,
 “conjointly with me, inspect the various premises and
 “localities where the several cases occurred, but that
 “appeal met with no response.”

The chief factor of the disease is stated to be defective drainage, but in several of the houses infected there was a close proximity between the house and the midden privy. The disease caused 7 deaths.

There were 2 cases of diphtheria notified, both of which proved fatal.

General Sanitation.

The back yards of the houses in the district are stated to be generally either irregularly paved or quite bare, and at Bottle Bank, Walton's Row, Middle Street, Silver Street, &c., there are some old tenements which do not appear to be in a satisfactory condition. There are still a large number of uncovered middens in the town, but many of the old defective ones have been improved. The report again urges that the District Council should undertake the work of cleansing and emptying the middens. In addition to his ordinary inspections the medical officer of health made a special inspection with the Sanitary Committee of certain parts of the district where defects were reported by one of the medical inspectors of the Local Government Board, and as a result many insanitary conditions were rectified.

Sanitary Requirements.

1. Special efforts should be made to remove the causes of the prevalence of enteric fever in the town during the past year.

2. The defective property at Bottle Bank, &c., should receive attention, and all back yards should be properly paved.

3. The removal of refuse and the cleansing of ashpits should be undertaken by the District Council.

BISHOP AUCKLAND.

T. A. McCULLAGH, M.R.C.S., Medical Officer of Health.

Area in Acres, 692. Estimated Population, 1894, 10,500.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
31·4	20·1*	2·1	184

Phthisis death-rate, 2·3 ; Respiratory diseases death-rate, 2·5. The birth-rate and the total and zymotic death-rates are all much lower than in the previous year. The infant mortality-rate, however, is considerably higher.

Infectious Diseases.

The Notification Act is not in force, and therefore the degree of prevalence of these diseases cannot be accurately gauged. Of the 21 zymotic deaths, however, no fewer than 13 were from enteric fever, and Dr. McCullagh states that there were probably about 130 cases of this disease during the year, though only 88 came to his knowledge. The cases were not confined to any particular class of the population, or to any special locality, for every part of

* Including 27 deaths in the Workhouse belonging to the town.

the town was affected. The causes of the disease are suggested by the recommendations which are made in the report for its prevention, viz. :—

1. Increased purity of the water supply.
2. Improvements in drainage, especially trapping, ventilation, and flushing.
3. Supply of disinfectants and instructions in their use.

There were 5 deaths from whooping cough and 5 from diphtheria and membranous croup, but the causes and degree of prevalence of the last-named diseases are not stated. The adoption of the Notification Act is again strongly advocated.

General Sanitation.

An enquiry was held on March 14th, 1894, by one of the inspectors of the Local Government Board as to the alleged pollution of the water supply to the town, which is taken from the river Wear. Up to the end of the year the result of the enquiry was not known, and in the meantime the improvement of the water supply remains in abeyance.

Considerable improvement in the ventilation of the sewers has been effected, and plans have been adopted and forwarded to the Local Government Board for approval, with the object of preventing the pollution of the river Wear with the sewage of the town.

Much work is reported to have been done to the insanitary property in the town, and the inspector

has served 794 written notices as well as 192 formal notices, by order of the Sanitary Authority, for the remedying of sanitary defects. In 583 instances these have received attention to the satisfaction of the inspector.

Sanitary Requirements.

(1) The adoption of the Infectious Diseases Notification Act. (2) The provision of a properly equipped permanent isolation hospital. (3) A more wholesome water supply.

BLAYDON.

PHILIP BROWN, M.D., Medical Officer of Health.

Area in Acres, 9,349. Estimated Population, 1894, 15,450.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
36·3	15·4	1·5	167

Phthisis death-rate, 0·7 ; Respiratory diseases death-rate, 3·5. The death-rate was 2·8 and the zymotic death-rate 1·9 lower than in the previous year, but the deaths from respiratory diseases and of children under one year of age were somewhat higher. The death-rate is fairly satisfactory, but it does not include the deaths of 9 persons in the Workhouse belonging to the district, which would raise the death-rate to 15·9 per 1,000.

Infectious Diseases.

The 84 cases notified included 24 of diphtheria and 21 of typhoid fever, and the medical officer of health remarks on the great assistance afforded him by the Notification Act. There were 4 deaths from diphtheria, but it is not stated if any of the cases of

this disease were connected with insanitary conditions. None of the cases of typhoid fever proved fatal. Of the non-notifiable diseases, diarrhoea caused 11 deaths, mostly in the summer quarter, while whooping cough and measles were both prevalent during the year.

An isolation hospital with 4 beds has been erected during the year. It is well isolated, but is built of corrugated iron and wood, and both the site and the building are too small.

General Sanitation.

The cleansing of the ashpits is stated to have been much more satisfactory during the year, and in the more populous portions of the district it is done by contractors. The substitution of ash-closets for midden privies has been effected in 14 instances, and "9 galvanised iron receptacles have been provided "for houses where it was found impossible to erect "privies because of the want of space." Notices have been served on the owners of 30 insanitary houses at Blackall Mill to put them into a proper sanitary condition, but owing to a proposed sewage disposal scheme for these and other houses in their vicinity being under consideration, they have been allowed to remain partly in abeyance.

44 houses have been supplied with a proper water supply, and the question of an increased supply for the whole district is being considered.

At Spen some new sewers have been laid down, and plans have been prepared for the sewerage and sewage disposal of High Spen.

Sanitary Requirements.

None specially mentioned, but the insanitary houses at Blackall Mill should be improved without any further delay.

The report is type written.

BRANDON AND BYSHOTTLERS.

HENRY SMITH, M.B., Medical Officer of Health.

Area in Acres, 6,683. Estimated Population, 1894, 15,257.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
37·4	16·9	2·48	162

Phthisis death-rate, 1·04 ; Respiratory diseases death-rate, 3·9. The general death-rate was about the same as in the two previous years, but there was a marked decline in the zymotic and infant mortality death-rates when compared with 1893.

Infectious Diseases.

Scarlet fever was very prevalent, and 275 of the 376 cases notified were of that disease. The other cases included 45 of diphtheria and croup, and 27 of typhoid fever. Most of the cases, especially those of diphtheria, occurred at Langley Moor, and the majority of the infected houses were visited by the medical officer of health. The zymotic deaths included 19 from measles, 8 from diphtheria and membranous croup, 4 from scarlet fever, and 3 from typhoid fever. 65 cases were admitted to the isolation hospital, and only 3 of these died, the value of the hospital being again apparent, though the report points out that the accommodation in it would be much too small should there be an outbreak of small-pox or cholera.

General Sanitation.

The water supply to two farms was on analysis found to be unfit for drinking purposes. In one of these cases a pure supply has been provided, and in the other the Authority has given orders for the well to be closed.

Three houses known as the Ivesley Huts were during the year found to be in bad condition. They have since been converted into two houses and otherwise improved.

The scavenging of the district, which is said on the whole to be well done, is performed by contract, and last year cost £915 15s., or nearly £38 less than in the previous year.

The slaughter-houses have generally been kept in good order, but a visit to the cowsheds showed that many of them were in need of cleansing, whitewashing, and general repairs, which were ultimately effected.

Sanitary Requirements.

The provision of further hospital accommodation. Under existing conditions a case of small-pox or typhus fever could not be admitted to the hospital without great danger to other patients who might be isolated there.

CONSETT.

GEORGE RENTON, M.D., Medical Officer of Health.

Area in Acres, 993. Estimated Population, 1894, 8,650.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
29·8	16·4	1·04	147

Phthisis death-rate, 1·5 ; Respiratory diseases death-rate, 3·2. The birth-rate is very considerably lower than in the previous year, as are also all the mortality rates. The total death-rate and the zymotic death-rate are especially low.

Infectious Diseases.

96 cases of infectious disease were notified, by far the most prevalent being erysipelas (62 cases). There was no particular prevalence of any of the other notifiable diseases, and the only zymotic deaths were from the non-notifiable diseases—measles, whooping cough, and diarrhœa.

There were 5 cases of small-pox, all in the early part of the year, and they were at once removed to hospital. As showing the protective value of vaccination Dr. Renton points out that two of the patients suffering from the disease were at the time suckling vaccinated children, and though these infants were removed to hospital with their mothers, neither of them contracted small-pox.

General Sanitation.

The house accommodation in the town is stated to be fairly satisfactory, but the paving of the yards of many of the houses is imperfect.

For several years the medical officer of health has pointed out the danger arising from the midden-privies being uncovered, “and yet, nothing so far has been done to remedy this great sanitary defect.” There have been several complaints about

the condition of the ashpits, and the report again urges that the District Council should undertake the work of cleansing and emptying them. 207 notices for the abatement of nuisances were served during the year, and they received attention without resort to legal proceedings. The slaughter-houses, dairies, and cowsheds are stated to have been kept in a clean and healthy condition.

Sanitary Requirements.

1. The proper paving of the back yards.
2. The covering over of all ashpit-privies.
3. The cleansing of ashpits and the removal of excrement and house refuse by the District Council.

FELLING.

M. F. KELLY, L.F.P.S., Medical Officer of Health.

Area of Acres, 2,684. Estimated Population, 1894, 18,000.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
43·7	20·7	2·6	161

Phthisis death-rate, 1·4; Respiratory diseases death-rate, 3·1. The above death-rates are slightly lower than the corresponding rates for the previous year, but the general death-rate is still high, and much above the average of the other urban districts in the county.

Infectious Diseases.

The number of cases notified was 88, and included 31 of scarlet fever (1 death), 13 of diphtheria and croup (4 deaths), 11 of typhoid fever (4 deaths). The cases of typhoid fever for the most part resulted from sanitary defects, which have since been remedied. There were also 26 deaths from

measles—the schools being closed during the autumn on account of its prevalence—and 8 deaths from diarrhœa. There was one fatal case of small-pox reported in January, but the disease did not spread. The district is still without an isolation hospital, but 6 cases were removed to the Gateshead fever hospital for treatment.

General Sanitation.

A great improvement is reported to have been effected at Wardley Colliery by the laying down of a new sewer, the old sewer having such a slight fall that the sewage in it was often stagnant. The drains in this village have also been properly trapped. The old sewer in Heworth village has also been relaid. A paragraph in the report is devoted to the question of the housing of the poor, but it does not state what has been done during the year for the improvement of their dwellings. The middens are stated to have been fairly regularly emptied by the employés of the Sanitary Authority, but “in some cases the ashes were “allowed to lie outside the middens.” A large number of new houses have been built in Felling during the year, the system of excrement disposal being that of the dry ash-closet.

The dairies, byres, and slaughter-houses are stated to have been inspected periodically and found sanitarily good.

Sanitary Requirements.

1. A permanent and properly equipped isolation hospital.

2. The enforcement of the Housing of the Working Classes Act with respect to all houses which are not fit for habitation.

HEBBURN.

GEORGE N. WILSON, M.B., Medical Officer of Health.

Area in Acres, 1,180. Estimated Population, 1894, 18,000.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
37·0	16·2	2·88	99

Phthisis death-rate, 1·8 ; Respiratory diseases death-rate, 2·7. Both the general and zymotic death-rates are lower than in the previous year, while the infant mortality-rate was remarkably low, more especially as measles and whooping cough were both very prevalent.

Infectious Diseases.

115 cases, or 85 less than in 1893, were notified and included, 38 of scarlet fever, which was of a mild type and fatal in no instance, 20 of enteric fever, 10 of diphtheria and croup, and 42 of erysipelas. Of the 5 deaths from enteric fever 2 were in the Quay and 3 in the New Town. There were only 3 deaths from diarrhœa against 34 in the previous year, but measles was epidemic during November and December, causing 27 deaths, while whooping cough was responsible for 16 deaths. During the prevalence of the measles epidemic the schools were closed, and this action was of great service in checking the epidemic.

All houses in which cases of infectious diseases were notified were visited by the medical officer of

health and inspector and afterwards disinfected. Eighteen cases were removed to hospital.

General Sanitation.

32 midden privies have been abolished, and improved ashclosets provided in their stead, while 24 insanitary ashpits have been raised to the ground level and cemented. In the parts of the town known as the "Quay" and the "New Town" the privy accommodation consists chiefly of ashclosets, and the death-rate was only 13·1 per 1,000, but at the "New Town" and "Colliery" where the system of excrement disposal is mostly that of the midden-privy the death-rate was 17·9. The dairies and milkshops, bakehouses and slaughter-houses are all reported to have been kept in good condition. The present sanitary inspector has only been in office during the last eight months of the year, and during that period 143 formal notices were served for the abatement of nuisances.

Sanitary Requirements.

1. An isolation hospital more adequate for the requirements of the town than that at present existing.

2. A steam disinfecting apparatus.

HOUGHTON-LE-SPRING.

D. S. PARK, F.R.C.S., Medical Officer of Health.

Area in Acres, 1,551. Estimated Population, 1894, 6,620.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
45·0	18·8	2·8	131

Phthisis death-rate, 0·3; Respiratory diseases death-rate, 3·7. The above statistics are fairly satis-

factory, and as regards mortality show a very marked improvement when compared with the very high rates of the previous year. The birth-rate was remarkably high, and for the last 5 years has averaged over 40 per 1,000.

Infectious Diseases.

105 cases, or less than half the number for the preceding year, were notified, the most prevalent diseases being scarlet fever (40), and typhoid fever (29 cases). The prevalence of scarlet fever is again attributed to the carelessness of parents in allowing their children to mix with those of their neighbours before they have entirely recovered from the disease. The cases of typhoid fever which, as Dr. Park says, is "one of those diseases which have their origin in "faulty or defective sanitation," were in many instances found associated with insanitary conditions, such as bad drainage or filth accumulations. With one exception all the cases of diphtheria were associated with defects of drainage, and some of the houses were also damp. Whooping cough was very prevalent during the last quarter of the year and caused 5 deaths. Measles was fatal in 4 instances, but there was not a single death from diarrhœa. The district is still without an isolation hospital, and on this subject Dr. Park says—"I regret to be again obliged to remind you "that your negotiations for a site for a fever hospital "have so far led to no practical result, and that the want "of such an institution is a serious danger to the public "health. Let me impress upon you the necessity of

“giving this question your immediate consideration.”

General Sanitation.

The report recommends that the water should be again analysed, as this has not been done for two years, and the water is known to be liable to intermittent pollution. The improvement of the Colliery Row sewer is also urged, as sediment is constantly deposited in it, which can only be flushed out by discharging it into, and polluting the adjoining stream. The scavenging of the district is said to have been fairly well performed, but it is pointed out that the duties of the sanitary inspector are too onerous for him to properly attend to them all. 75 notices have been served during the year for the abatement of nuisances, 5 of them being under the Housing of the Working Classes Act. Except for some houses in Hopper Street the district is said to be fairly well spouted.

Some of the back streets are in a bad state, and it is recommended that they should be paved. The dairies and cowsheds, the slaughter-houses and the common lodging-houses have received the necessary attention.

Sanitary Requirements.

1. A permanent and properly equipped isolation hospital.
2. The improvement of the Colliery Row sewer.
3. The paving of the remaining back streets.
4. A periodical analysis of the water supply.

5. Scavenging and the removal of house refuse by the District Council is desirable.

The report is unfortunately **not** printed.

LEADGATE.

GEORGE RENTON, M.D., Medical Officer of Health.

Area in Acres, 1,838. Estimated Population, 1894, 4,560.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
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34·8

14·6

0·87

119

Phthisis death-rate, 1·5 ; Respiratory diseases death-rate, 3·5. The birth-rate is rather lower than in previous years, while the mortality statistics are all low and satisfactory, and compare very favourably with those of 1893.

Infectious Diseases.

There was no marked prevalence of any infectious disease during the year, only 30 cases being notified, including 10 of scarlet fever, 7 of small-pox, 4 of diphtheria and croup, and 3 of enteric fever. The cases of small-pox were the result of the epidemic in the previous year, and occurred during January and February. They were all removed to hospital and the disease soon stamped out. The 2 cases of diphtheria notified were both fatal, the only other deaths being from enteric fever (2), there being no deaths from either measles, whooping cough, or diarrhœa.

General Sanitation.

The houses in the district are mostly kept in good repair, though the report states that until all the houses are provided with back kitchens the housing of the working classes cannot be said to be entirely satis-

factory. The cleansing of the privies, ashpits, and middens to a great extent devolves upon the tenants, and on this subject I quote Dr. Renton's remarks :
 " One is apt to get weary of repeating year by year
 " certain advice and finding it never acted upon. I
 " must say I am getting tired of constantly urging on
 " you the advisability of your Board undertaking this
 " work, and getting no response to my appeal." The covering over of all the open ashpit-privies is again strongly urged. Two special inspections were made by the medical officer of health during the year respecting insanitary dwellings, and his recommendations are receiving attention.

Sanitary Requirements.

1. The covering over of all open ashpit-privies.
2. The cleansing of ashpits and the removal of excrement and house refuse by the District Council.
3. A proper system of sewage disposal for the north part of the district.

RYTON.

PHILIP BROWN, M.D., Medical Officer of Health.

Area in Acres, 5,150. Estimated Population, 1894, 6,450.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
28·5	13·1	1·2	135

Phthisis death-rate, 1·2 ; Respiratory diseases death-rate, 1·3. With the exception of the phthisis death-rate, the above rates show a marked decrease when compared with the previous year.

Infectious Diseases.

The number of cases of infectious disease reported under the Notification Act (46) was very small, and of these 32 were of scarlet fever, which, however, was of a very mild type, and did not cause a single death. There was 1 death from typhoid fever, 3 each from whooping cough and diarrhœa, and 1 from measles. Disinfection where necessary is stated to have been carried out by the inspector. The district is still without an isolation hospital.

General Sanitation.

The water supply which was very deficient during 1893 has been supplemented by pumping water from the Addison Colliery into the existing pipes. It has twice during the year been analysed by the County Analyst, who pronounced it a safe and wholesome drinking water.

53 notices—9 of them by order of the Sanitary Authority—were served during the year, and except in 4 instances are reported to have been complied with. Action is also being taken under the Housing of the Working Classes Act, 1890, to close several houses as unfit for habitation. New sewers have been laid down at Crawcrook and Runhead.

Model byelaws are receiving the consideration of the District Council, and regulations for the proper construction of ashpits and privies have been adopted, and are being strictly enforced.

Sanitary Requirements.

1. The provision of a properly equipped isolation hospital.

2. The adoption of new sanitary byelaws.

SEAHAM HARBOUR.

L. GERALD DILLON, M.D., Medical Officer of Health.

Area in Acres, 1,089. Estimated Population, 1894, 9,520.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
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37·1	23·9	4·4	186
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Phthisis death-rate, 1·9; Respiratory diseases death-rate, 7·4. The general death-rate exceeds by 0·9 the high rate of the previous year, while the zymotic, infant mortality, and respiratory diseases death-rates were all very high.

Infectious Diseases.

176 cases were notified, as compared with 61 in 1893, and included 147 cases of scarlet fever, which was fortunately of a mild type, and only caused 2 deaths. The spread of this disease is attributed to the carelessness of parents in sending children to school from infected houses. Of the 12 cases of typhoid fever 5 ended fatally. Measles and whooping cough both caused a high mortality (19 and 7 deaths respectively) and Dr. Dillon suggests that the first case in each house of measles should be required to be notified. There was one case of small-pox, but the disease did not spread. One ward and the administrative block of the new fever hospital have been completed. It is situated in a fair position and is built of brick.

General Sanitation.

The satisfactory character of the water supply is remarked upon. The scavenging and the cleansing

of the ashpits, etc., is now performed by the workmen of the District Council, and satisfactorily. It is recommended that the ashpit-privies should be covered, cemented, and ventilated, and also provided with a proper hatch to facilitate their being properly cleansed.

The common lodging-houses have been frequently inspected and found in a satisfactory condition. New sanitary bye-laws are in course of preparation.

Sanitary Requirements.

1. The carrying out of the medical officer of health's recommendation as to the improvement of the present system of refuse disposal.

2. The completion and proper equipment of the isolation hospital.

SHILDON AND EAST THICKLEY.

S. FIELDEN, M.D., Medical Officer of Health.

Area in Acres, 1,066. Estimated Population, 1894, 9,890.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
34·5	14·6	0·7	143

Phthisis death-rate, 1·0; Respiratory Diseases death-rate, 2·3. There has been a very marked improvement in the public health of the district compared with 1893, when the general death-rate was 25·8, the zymotic death-rate 8·3, and the infant mortality-rate 239.

Infectious Diseases.

117 cases, or only about one-third the number of the previous year, were notified, and included 47 of scarlet fever and 46 of enteric fever. There were no

deaths from scarlet fever, and the disease was generally of a very mild type. 4 of the 7 zymotic deaths were from enteric fever, 3 of them occurring in New Shildon and 1 in Old Shildon. The number of cases and deaths from this disease was very small considering how severely epidemic it was in the previous summer and autumn. A connection between many of the cases and defective sanitary environment was ascertained, while the disease appears to have been frequently propagated by the throwing of infected excreta into the midden-privies. Galvanized air-tight pails have been supplied during the year for the reception of the excreta of patients suffering from enteric fever, with undoubtedly good results. There were only two deaths from diarrhœa.

General Sanitation.

Much good work has been done during the year, a number of streets having been made, sewers and drains relaid and ventilated, and water-closets provided in place of midden-privies.

The slaughter-houses when visited have been found in a satisfactory state, but regulations for the dairies and cowsheds have not yet been framed, though the matter is being considered. The emptying and cleansing of the ashpit-privies has been better done, though it is again advised that in summer and autumn this work should be done before sunrise.

Sanitary Requirements.

1. A properly equipped permanent isolation hospital, which Dr. Fielden thinks should be erected

both for this district and in suitable centres throughout the county by the County Council.

2. A steam disinfecting apparatus.
3. Regulations for dairies and cowsheds.
4. The adoption of the recommendations in the report as to the time of emptying of the ashpits.

SOUTHWICK.

JAMES STOBO, L.R.C.P., Medical Officer of Health.

Area in Acres, 845. Estimated Population, 1894, 11,030.

Birth-rate.	Death-rate.	Zymotic-rate.	Infant Mortality-rate.
38·5	22·3	4·6	211

Phthisis death-rate, 1·2 ; Respiratory diseases death-rate, 5·6. The general death-rate is high and exceeded by 1·4 per 1,000 the rate of the previous year. For the third year in succession the zymotic death-rate has been excessive—exceeding 4·0 per 1,000 population—while the infant mortality and the respiratory death-rates are also very high, the result largely of the prevalence of measles.

Infectious Diseases.

The Notification Act has not yet been adopted in this district, and therefore the number of cases of these diseases which occurred during the year cannot be accurately ascertained. There can be no doubt, though, that measles was the most prevalent, in fact it was very fatally epidemic, causing 27 deaths and also many more indirectly. The report contains some very interesting remarks as to the carelessness of parents, and the danger of school attendance, in connection with this disease. Scarlet fever caused 3, typhoid fever 7,

and diarrhoea 12 deaths, and the typhoid fever rate, though lower than last year, was again very high.

The temporary isolation hospital was very useful during the year, and the report points out the urgent need, when the new isolation hospital is erected, of providing also a proper steam disinfecting apparatus.

General Sanitation.

Two special inspections of the district were made during the year by the sanitary officials, and as a result 592 notices were served for the abatement of nuisances, such as leaking middens, defective yard paving, want of water supply, etc.

Referring to the Housing of the Working Classes Act the report specially calls attention to the insanitary condition of the property in Stafford and Waterloo Streets, much of which is "due to the old, "damp and dilapidated condition of the property, and "much of it may also be traced to the lazy, careless, and "filthy habits of the tenants." . . . "I am therefore very much afraid that if such nuisances continue "the Board will have to deal with them under the "above Act and close them up."

Sanitary Requirements.

1. The adoption of the Notification Act, and the provision of a proper permanent hospital and disinfecting apparatus.

2. The enforcement of the Housing of the Working Classes Act in Stafford and Waterloo Streets and wherever else necessary.

This report is **not** printed.

SPENNYMOOR.

J. C. O'Hanlon, L.R.C.S.I., Medical Officer of Health.

Area in Acres, 168. Estimated Population, 1894, 6,041.

Birth-rate. Death-rate. Zymotic death-rate. Infant Mortality-rate.

38·5

17·4

1·3

133

Phthisis death-rate, 1·5 ; Respiratory diseases death-rate, 3·3. The birth-rate shows a slight increase when compared with 1893, but all the above death-rates are very much lower than in previous years.

Infectious Diseases.

These were not at all prevalent ; only 84 notifications having been received as compared with 171 in the previous year. The cases included 27 of diphtheria, 24 of enteric fever, and 15 of scarlet fever. The most fatal of these diseases was enteric fever with 4 deaths. No special reference is made in the report to the causes to which the above cases may have been attributable.

General Sanitation.

The cleansing of ashpits and the removal of refuse is done by contractors between the hours of 10 p.m. and 8 a.m., and is said to be satisfactorily performed. All the privies and ashpits after being emptied are disinfected by one of the employés of the Sanitary Authority, specially engaged for that purpose. The unsatisfactory condition of the large uncovered ashpits in Edward Street, which still exist, is again referred to. Much good work has been completed during the year. New sewage disposal works have been laid down, the method of purification being by

precipitation, subsidence and artificial filtration. A number of drains have been properly trapped, and 170 covered ash closets have been substituted for insanitary midden-privies, many of which were in close proximity to houses. 37 privies and ashpits have been repaired.

The water supply is reported to be excellent, and the meat and milk supplies satisfactory.

Sanitary Requirements.

The following, all of which are very necessary, are recommended in the report :—

1. A permanent isolation hospital.
2. A disinfecting apparatus.
3. The enlarging of the main sewer to prevent the flooding of the cellars in High Street.

STANHOPE.

JOHN GRAY, M.B., Medical Officer of Health.

Area in Acres, 211.		Estimated Population, 1894, 1,864.	
Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
26·2	15·5	4·2	102

Phthisis death-rate, 1·0 ; Respiratory diseases death-rate, 1·6. The general death-rate, if the deaths of 13 persons in the town not belonging to it are excluded, was the same as in the previous year.

Infectious Diseases.

Typhoid fever was epidemic in the early months of the year and caused five deaths, and, owing to the Notification Act not being in force and to there being no isolation hospital, proper precautionary measures against the spread of the disease could not

be adopted. The disease had three points of origin which were traceable in each instance to former cases in the latter part of the previous year. Whooping cough was epidemic during the last quarter, and caused 3 deaths. There were no other deaths from infectious diseases.

General Sanitation.

Two systematic house-to-house inspections were made by the sanitary officials and 22 written notices have been given and attended to. River pollution still occurs at Butts Ford and at Horn Hall. Several insanitary midden-privies have been abolished or improved, but there are still six houses with no ash-pits, and two with no privy. During the year the quantity of the water supply has been doubled. The report again recommends the substitution of socket pipes for the old stone culverts, the adoption of new byelaws and of regulations for the management of dairies and cowsheds, and that the Authority should undertake the regular and systematic scavenging of the district.

The only common lodging-house in the town was closed in March on account of its bad condition.

Sanitary Requirements.

The adoption of the Infectious Diseases Notification Act, and the carrying out of the medical officer of health's recommendations as to isolation hospital, disinfection, sewerage, scavenging, and byelaws.

STANLEY.

T. BENSON, M.D., Medical Officer of Health.

Area in Acres, 2,006. Estimated Population, 1894, 9,300.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
36·7	13·3	0·3	149

Phthisis death-rate, 1·0; Respiratory diseases death-rate, 1·7. The above death-rates are extremely satisfactory, especially for an urban district. The general death-rate was 6·9 per 1,000 below the rate for 1893.

Infectious Diseases.

There were only 30 cases notified, and of these 18 were of scarlet fever and 9 of typhoid fever. There was not a single death from any of the notifiable diseases, except one from erysipelas, and the only other zymotic deaths were one each from measles, whooping cough, and diarrhœa. There were no cases of infectious disease removed to the Leadgate fever hospital during the year.

General Sanitation.

120 new and well-built houses have been occupied during the year. At Pea Pit, Shield Row, and Kip Hill a number of houses were condemned as unfit for habitation, but no decisive action is said to have been taken by the Sanitary Authority with regard to defective houses at Shield Row, Hill Top, Havannah, and Louisa Terrace which were also reported to them. At the last-named place, however, new houses are being erected to accommodate the tenants of the insanitary houses.

45 ashpits and privies were rebuilt or repaired during the year, and the report recommends that as far as possible the old, open, and frequently-leaking midden-privies should be replaced by modern ash closets.

A new sewerage scheme is in course of preparation for a large portion of the district, the sewage of which at present pollutes the Houghel Burn. There appears to be a nuisance at Quaking Houses owing to a want of proper sewers, and the sewage of the Barracks and part of Old South Moor still pollutes the Stanley Burn, the water of which is used for drinking purposes by a portion of the inhabitants of the town of Chester-le-Street. The removal of refuse is done by the property owners, but complaints are frequently made that the work is not done satisfactorily.

The dairies, slaughter-houses, and lodging-houses are all reported to have been kept in good condition.

Sanitary Requirements.

1. The prevention of the pollution of the Stanley Burn.
2. An improved system of excrement disposal in place of the open insanitary midden-privies.
3. The removal of house refuse, and the cleansing of ashpits, etc., by the District Council.

TOW LAW.

JAMES WILD, L.R.C.P., Medical Officer of Health.

Area in Acres, 470. Estimated Population, 1894, 4,564.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
32·6	13·8	1·7	107

Phthisis death-rate, 1·9 ; Respiratory diseases death-rate, 1·9. Except for the phthisis death-rate, all the above rates are very much lower than obtained in 1893. The vital statistics are calculated on the last census population.

Infectious Diseases.

140 cases were notified as compared with 52 in the previous year, the most prevalent diseases being scarlet fever and diphtheria, with 88 and 40 cases respectively. No reference is made in the report to the prevalence of diphtheria, although it caused 5 deaths during the year, nor do any special precautions appear to have been taken to stamp out the disease.

The district is still without any isolation hospital or disinfecting apparatus.

General Sanitation.

The report suggests that the public schools should be thoroughly disinfected and whitewashed during the holidays.

“ Our lodging-houses are not very satisfactory
 “ as regards cleanliness, and in my opinion they ought
 “ to be whitewashed at least once a year, for these
 “ places are visited by men and women travelling from
 “ all parts of the country, and often with disease upon
 “ them.” At Ironworks Road a house occupied by Harrison, and also a house in No. 1 Block, High Street West, are reported as unfit for habitation. At Ten Houses, Prince Row, Bridge Street North, High Street, Railway Street, and Campbell Street serious defects in drainage, sewerage, or other sanitary

surroundings of the houses are reported, and should receive the immediate attention of the District Council.

Sanitary Requirements.

1. An isolation hospital, and there should also be supervision and disinfection of all houses from which cases of dangerous infectious disease are notified.

2. The enforcement of the Housing of the Working Classes Act in the case of those houses mentioned in the report as being unfit for habitation.

3. Careful supervision of the common lodging-houses, and the remedying of the other numerous sanitary defects referred to in the report.

The report is unfortunately **not** printed.

WHICKHAM.

A. W. ATTWATER, L.R.C.P., Medical Officer of Health.

Area in Acres, 5,961. Estimated Population, 1894, 9,600.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
36·3	14·9	0·83	126

Phthisis death-rate, 0·6 ; Respiratory diseases death-rate, 2·8. The birth-rate is slightly higher, but all the other above rates are much lower than in 1893.

Infectious Diseases.

Only 53 cases were notified, the most prevalent of the diseases being scarlet fever (33 cases) of a mild type. The only 2 cases of diphtheria notified proved fatal, but there was not a single death from typhoid fever. Measles was very prevalent in Dunston and Swalwell towards the end of the year, but only one fatal case was recorded.

General Sanitation.

The report again recommends that the ashpits and privies should be emptied at night or during the early morning, instead of during the day. No new houses have been erected during the year, and the houses of the working classes are said to be in the same condition as when previously reported on. No case of unwholesome food being exposed for sale has come under notice.

The site for the isolation hospital has been chosen, and plans prepared, but nothing further done, and the medical officer of health says, "I must again request your Council to please give this matter your consideration, as in the event of an epidemic we have no means of isolating a single patient."

Sanitary Requirements.

1. A properly equipped isolation hospital.
2. The emptying and cleansing of the ashpits, &c., during the night time.

The report is unfortunately **not** printed.

WILLINGTON.

R. E. BROWN, L.R.C.P., Medical Officer of Health.

Area in Acres, 3,795. Estimated Population, 1894, 8,000.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
35·0	16·3	2·5	135

Phthisis death-rate, 0·7 ; Respiratory diseases death-rate, 2·9. The death-rate is 4·5 per 1,000 lower than in 1893, while the other rates, especially the infant mortality-rate, are also much more satisfactory.

Infectious Diseases.

80 cases, or 7 less than in the previous year, were notified, and included 54 cases of scarlet fever and 10 of typhoid fever. There was only one death from scarlet fever, but 70 per cent. of the cases of typhoid fever notified proved fatal, while among the 5 cases of diphtheria and membranous croup there were 3 deaths. Measles was prevalent during the second quarter of the year, and caused 5 deaths.

Disinfectants are provided gratuitously to infected houses, but there does not appear to have been any systematic disinfection of such houses by the officers of the Sanitary Authority, and the district is still unprovided with an isolation hospital.

General Sanitation.

The method of excrement disposal is mainly of the ashpit-privy type, but new houses are being provided with smaller ashclosets. A portion of the district is scavenged by the Sanitary Authority by contract, and the report suggests that the whole district should be so scavenged.

Some of the drains in Railway Terrace are untrapped. The sewage of the district pollutes local streams or the river Wear, but owing to the action of the County Council a sewage disposal scheme is under consideration, and an engineer has been instructed to prepare plans.

The dwellings of the working classes are stated to be generally good, though there are some back-to-back houses both at Willington and Page Bank.

The 2 common lodging-houses and the 12 registered slaughter-houses are said to have been kept in good condition.

The paving in front of a number of houses and the levelling and improving of some of the streets has been proceeded with during the year.

Sanitary Requirements.

1. The undertaking by the District Council of the removal of excrement and house refuse throughout the district.

2. The paving of all unpaved yards.

3. The provision of a properly equipped isolation hospital and disinfecting apparatus.

4. The proper and systematic disinfection by the District Council of all houses in which cases of dangerous infectious diseases have occurred.

RURAL DISTRICTS.

AUCKLAND RURAL DISTRICT

(No. 1 Division).

T. A. McCULLAGH, M.R.C.S., Medical Officer of Health.

Area in Acres, 19,130. Estimated Population, 1894, 27,514.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate
31·7	17·1	1·9	180

Phthisis death-rate, 1·2 ; Respiratory diseases death-rate, 2·5. There is a slight increase in the mortality-rate among children under 1 year of age, but the other rates, and especially the birth-rate, show a considerable decline when compared with those for the previous twelve months.

Infectious Diseases.

The Notification Act is not in operation in the district. The most fatal of these diseases was diphtheria (and membranous croup) which caused 18 deaths, 16 of which were at the village of Byers Green. In 1893 there were also 14 deaths at this village, and during the past two years the disease has been several times epidemic. The village was twice visited by the medical officer of health, who formed the opinion that the disease was mostly spread by direct infection, especially by children from infected houses or while in an infectious condition attending school. Printed notices were circulated advising precautionary measures to be taken, and the schools were closed as a means of further preventing the spread of the disease. Typhoid fever caused 10 deaths, 4 of which were in St. Andrews, 3 in Coundon Grange, 2 in Merrington and 1 in Newfield, but the probable cause of this disease in these places is not stated. Diarrhœa caused 12 deaths as against 37 deaths in 1893.

General Sanitation.

The water supply of the district is stated to be good, and the sewers are reported to have been regularly flushed during the summer and autumn.

Sewage disposal works have been laid down at Etherley Dene with the object of preventing the pollution of the Wear above the intake of the Bishop Auckland water supply. The insanitary condition of the drainage of Pease's Row, South Church, is specially referred to as a source of danger. At Byers Green,

Coundon, Coundon Grange, Eldon, Merrington, Middlestone, and Middridge a number of improvements in drainage and privy accommodation are reported, and especially at Witton Park, a great deal of work as to these matters is stated to be in progress.

During the year 1,741 notices were served for the abatement of nuisances and 188 under the Housing of the Working Classes Act. Under this Act, 4 houses were closed at Witton Park, as unfit for habitation.

Sanitary Requirements.

1. The adoption of the Infectious Diseases (Notification) Act.

2. The provision of a properly constructed permanent isolation hospital.

3. A better system of sewage disposal for Pease's Row, South Church.

AUCKLAND RURAL DISTRICT

(No. 2 Division).

GEO. W. ELLIS, L.R.C.P., Medical Officer of Health.

Area in Acres, 43,393. Estimated Population, 1894, 36,220.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
35·09	16·9*	2·8	176

Phthisis death-rate, 1·0; Respiratory diseases death-rate, 3·5. There was a slight decrease in the general death-rate, but both the zymotic and infant mortality rates were considerably higher than in the previous year.

Infectious Diseases.

The Notification Act is not in operation, and

* Exclusive of 7 deaths belonging to the district in the County Asylum and the Workhouse.

the report again very strongly urges its adoption, and points out that "the advantages derived by its adoption have been undeniably proved." Measles was epidemic in several portions of the district, notably at Crook, and caused 61 deaths. Its spread is attributed to children attending school while suffering from mild attacks of the disease, and to parents sending children from infected houses to school. Of the 7 deaths from enteric fever, most of them were traceable to insanitary conditions, and the majority of them were in the Crook district. There were 6 deaths from diphtheria, all probably the result of insanitary surroundings, and 5 from membranous croup.

General Sanitation.

An agreement has been made with the Teesdale Union for supplying water to the Lynesack and Softley township, which at present is without a proper supply. Plans for the scheme are being prepared, and the report urges that there should be no unnecessary delay in the matter. The necessity of a proper supply to Fir Tree village is also pointed out. A number of wells in the district have been closed owing to the polluted state of the water. A new main sewer has been laid down at Witton-le-Wear, but the sewage of the village still runs into and pollutes the river Wear.

The drainage of Fir Tree village is reported to be defective, and plans for new sewers have been prepared. At Arthur Pit cottages "a new system of drainage is urgently required," and at Crook many of

the branch sewers are in a bad state, though both at that place and Woodfield Rows considerable sanitary improvements have been made during the year.

The Morley Schools are said to be damp and in need of a new system of warming and ventilation. At West Auckland a number of houses at Foundry Yard are reported to be unfit for habitation, while the sewage of the village pollutes the river Gaunless. A nuisance is caused by the sewer outlet of Hamsterley village being so close to the road, and proper sewage disposal works are recommended. At Sunnybrow a number of sanitary improvements have been effected, but there are still many defects of house and privy accommodation, and proper disposal of the sewage is much needed. A number of houses in the district have been closed as unfit for habitation.

Some of the common lodging-houses are without sufficient ventilation, while the cubic air space allowed per head is stated to be insufficient for health. In many parts of the district, notably at West Auckland, Evenwood, and Crook, nuisances from want of proper scavenging and cleansing of ashpits, &c., have been very common, and in connection with this matter Dr. Ellis says :—“ashpits are frequently allowed to overflow before being attended to, and then are only partially emptied, the lower and most offensive matter being allowed to remain. It would be very much better if the Sanitary Authority would take this matter of scavenging into their own hands.” The need of refuse tips for some parts of the district is also pointed out.

Sanitary Requirements.

1. The adoption of the Notification Act.
2. The provision of a permanent and properly equipped isolation hospital.
3. The cleansing of ashpits, &c., and the removal of house refuse by the Sanitary Authority in the more populous parts of the district.
4. A proper water supply to, and the sewerage of Fir Tree village.
5. The proper disposal of the sewage of Witton-le-Wear and of the other villages mentioned in the report.
6. The remedying of the sanitary defects at the Morley schools, Arthur Pit cottages, &c.
7. Better ventilation of, and the allowance of more cubic space per head in the common lodging-houses.

CHESTER-LE-STREET RURAL DISTRICT.

DAVID DUNCAN, M.B., L.S.Sc., Medical Officer of Health.

Area in Acres, 34,869. Estimated Population, 1894, 53,020.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
39·5	20·1	3·3	177

Phthisis death-rate, 1·5 ; Respiratory diseases death-rate, 4·4. The zymotic and infant mortality rates are both high, though the former is somewhat lower than in 1893.

Infectious Diseases.

538 cases were notified, as against 842 in the previous year, and included 111 cases of enteric fever,

309 of scarlet fever, 12 of diphtheria, and 7 of small-pox. Enteric fever was most prevalent at Fatfield, where the water supply from wells is stated to be suspicious; at Washington, where "the drainage is "very bad in many places;" and at Chester-le-Street, where "one of the water supplies to the village is "liable to sewage pollution." Two successful prosecutions were instituted against persons for exposing their children while in an infectious state from scarlet fever. All the cases of small-pox occurred at Ouston at the the beginning of the year, and were removed to hospital. Measles was epidemic in several parts of the district, and caused 67 deaths. On account of its prevalence the schools were closed at Chester-le-Street, Kibblesworth, Barmston, North Biddick, and Usworth Colliery, with the result that the outbreaks were decidedly checked. There were 51 deaths from diarrhœa, and 25 from whooping cough. 24 cases of infectious disease were removed to the isolation hospital, which is not in a satisfactory condition, as the roofs are not waterproof, nor the wards sufficiently cut off from each other, or from the administrative block.

General Sanitation.

A large number of notices have been served under the Housing of the Working Classes Act, especially with regard to property in the Chester-le-Street, Pelton, Witton Gilbert, and Usworth and Washington districts. In a few instances the houses had either been closed or repaired, but in the majority

of cases nothing had been done up to the end of the year, and this especially applies to houses at Pelton Fell, Porto Bello, Oxclose, and Aluminium Terrace, Washington. A closing order was obtained in July respecting the Old Hall, Washington, but was not enforced, and it is still occupied by nine tenants. Sewers and sewage disposal works have been provided for Alma Pit houses and Boundary Cottages, and improvements in the sewerage and drainage have been made at Chester-le-Street, No Place, Nettlesworth, Washington Staiths, Witton Gilbert, and Sacriston. At Pelton Fell nearly all the open channels have been replaced by sanitary-pipe drains, and trapped with syphon gullies. At Andrew's Houses, Chowdean, and Chester-le-Street, the disposal of sewage continues unsatisfactory. At Craghead the present means of sewage disposal is insufficient, owing to the increase in the number of houses connected with it, and sewage disposal schemes are much needed, and are recommended for the Pelton, Ouston, and Perkinsville districts; for the Washington and Usworth districts, and for Chester Moor and Waldrige. The whole of Witton Gilbert and Daisy Hill should be included in the Witton Gilbert sewerage scheme. The Usworth High Rows have been supplied with good drinking water, and so have a number of houses at Witton Gilbert, where 4 polluted wells have been closed. High Usworth and Eighton Banks are also to be provided with a good water supply; and at Low Flatts, Fatfield, and part of Chester-le-Street,

a purer supply appears to be much needed. Sanitary bye-laws have been adopted by the Sanitary Authority, and came into force at the beginning of the present year.

Sanitary Requirements.

1. A steam disinfecting apparatus, and a better isolation of the wards of the hospital from one another and from the administrative block.

2. A more systematic enforcement of the Housing of the Working Classes Act.

3. Improved water supplies at Low Flatts, Fatfield, and part of Chester-le-Street.

4. The proper disposal of the sewage of the Pelton, Usworth, and Waldrige districts and the improvement of the existing system of sewage disposal for the town of Chester-le-Street.

5. The extension of the Witton Gilbert sewerage scheme, so as to include the whole of that village, Daisy Hill, and Sacriston.

In concluding his report Dr. Duncan says :—
 “ I beg to point out to you the overcrowded condition
 “ of the houses of the union. I do not know of a single
 “ empty house, and there are a large number of houses
 “ unfit for habitation, which ought to be closed.”

DARLINGTON RURAL DISTRICT.

CHARLES M. HARDY, M.B., Medical Officer of Health.

Area in Acres, 42,034. Estimated Population, 1894, 9,367.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
22·2*	13·1	0·96	93*

* These rates are for the whole district, which includes a small portion of the North Riding of Yorkshire.

Phthisis death-rate, 1·1; Respiratory diseases death-rate, 1·5. With the exception of that from phthisis, all the above rates are lower than in the previous year, and are very satisfactory.

Infectious Diseases.

There were only 44 cases notified, among these being 22 of scarlet fever and 9 of enteric fever. There were 9 deaths, of which 1 each was from scarlet and typhus fevers, 4 from whooping cough and 3 from diarrhœa. 4 cases were removed to the Darlington isolation hospital, to which cases from this district are allowed to be sent.

General Sanitation.

The water supply of the district is reported to be fairly good, but most of the villages are supplied from wells which should be periodically analysed. The mains of the Stockton and Middlesbro' Water Company run through several of the villages so supplied.

At High Coniscliffe a new system of drainage and sewage disposal have been laid down, and steps are being taken to prevent the pollution of the river Tees by sewage in several parts of the district.

The housing of the working classes is reported to be fair, but the report recommends that the District Council should insist that all houses should be properly spouted, as a means of preventing dampness. The slaughter-houses, dairies, and cowhouses are said to have been frequently visited and to have been kept in fair order.

Sanitary Requirements.

1. The proper spouting of all houses in the district.
2. A careful supervision of the water supply obtained from shallow wells.

DURHAM RURAL DISTRICT
(Eastern Division).

W. A. HEPBURN, M.D., Medical Officer of Health.

Area in Acres, 15,324.		Estimated Population, 1894, 15,080.	
Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
38·6	15·6*	0·99	173

Phthisis death-rate, 0·9 ; Respiratory diseases death-rate, 3·1. The above rates are very much lower than in 1893, and with the exception of the infant mortality-rate, which is high, are fairly satisfactory.

Infectious Diseases.

There has been a very large increase in the number of notifications, 247 cases having been reported, compared with 91 in the previous year. This is entirely owing to the increase in the prevalence of scarlet fever, which was epidemic throughout the whole district, especially during the last quarter. 181 cases of this disease were notified, and on account of its prevalence the schools were closed at Sherburn, Sherburn Hill, and East Hetton, and apparently with good results. The schools were disinfected before being re-opened. There were 20 cases of enteric fever with 6 deaths, but the probable causes of the cases is not

* Exclusive of 4 deaths in Sherburn hospital not belonging to the district.

stated. 2 cases were removed to the isolation hospital. Almost all the houses from which cases were notified were visited by the medical officer of health.

General Sanitation.

A large number of notices have been served under the Housing of the Working Classes Act, and 12 houses have been closed by order of the magistrates, the rest having been repaired or else are at present receiving attention. Plans and estimates for sewage disposal works at East Hetton and Littleton have been prepared. The Local Government Board, however, refused to grant a loan for the works at Littleton, unless the sewage was irrigated on a sufficient area of land in addition to passing it through the proposed tanks and filter beds, and fresh plans are therefore being prepared. Improvements in the sewerage of Low Pittington have been carried out, and similar work is to be effected at Sherburn Colliery. A number of defective ashpits, privies, and drains have been put into a good condition, and as a result of an enquiry the Local Government Board ordered the Sanitary Authority to undertake the scavenging, and the cleansing of privies and ashpits in the townships of Cassop, Coxhoe, Gilesgate (rural), Shadforth, and Sherburn.

Sanitary Requirements.

None specially referred to, but a steam disinfecting apparatus is greatly needed, and further provision for the isolation of infectious patients is desirable.

DURHAM RURAL DISTRICT (Western Division).

EDWARD JEPSON, M.D., Medical Officer of Health.

Area in Acres, 17,582. Estimated Population, 1894, 19,435.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
32·8	14·6	1·4	149

Phthisis death-rate, 1·1 ; Respiratory diseases death-rate, 2·8. The above rates are satisfactory, and considerably lower than those for 1893.

Infectious Diseases.

The notifications received were 302, or 14 less than in the previous 12 months. The most prevalent disease was scarlet fever (156 cases and 4 deaths), and there were also 35 cases of diphtheria and membranous croup (8 deaths), and 33 of enteric fever (4 deaths). Measles was responsible for 5, whooping cough for 5, and diarrhoea for 2 deaths. In the early part of the year scarlet fever was epidemic at Broompark, and at a later period at Neville's Cross and Bearpark. The report states that "the rapid spread of the disease at Bearpark Colliery appeared to be due to children, convalescent from the disease, either attending school, or mingling with others in the playground." 25 cases have been admitted to the isolation hospital during the year, and also 1 from the Workhouse. The report rightly points out that the medical men attending cases of infectious diseases should boldly urge the use of the isolation hospital in all cases where there is not proper isolation in the dwelling-house. The necessity for the extension of the

hospital is pointed out, and also the importance of providing a proper disinfecting apparatus.

General Sanitation.

The provisions of the Housing of the Working Classes Act have been enforced during the year in several parts of the district, and 32 houses have been ordered by the magistrates to be closed.

The sewage disposal works at Croxdale Colliery have been enlarged and improved, and the laying down of sewage disposal works for the villages of Broompark and Framwellgate Moor is under consideration. The drains at the end of the rows at Framwellgate Moor and at the New Rows, Pity Me, have been properly trapped. An order has been made by the Local Government Board on the Sanitary Authority to undertake the scavenging and the emptying and cleansing of the privies and ashpits in the townships of Broom, Sunderland Bridge, and Framwellgate Moor (rural).

Throughout the district a number of insanitary ashpit-privies have been put into a proper condition, and numerous defects of drainage have been remedied.

Sanitary Requirements.

1. A proper disinfecting apparatus.
2. Increased isolation hospital accommodation.

EASINGTON RURAL DISTRICT.

JAMES ARTHUR, L.R.C.P., L.S.Sc., Medical Officer
of Health.

Area in Acres, 36,942.		Estimated Population, 1894, 42,441.*	
Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
38·2	18·6	2·6	174

Phthisis death-rate, 1·2 ; Respiratory diseases death-rate, 3·2. Compared with the statistics of the previous year, the birth-rate is slightly lower, and there is a marked decrease in the general, zymotic, and infant mortality death-rates.

Infectious Diseases.

The most prevalent disease during the year was scarlet fever, 429 of the 747 cases reported under the Notification Act being of that disease. It was most prevalent in the Haswell and Seaham districts, and during the last quarter, the number of deaths during the year being 16. The number of cases of enteric fever reported (109 cases with 24 deaths) compares very favourably with the previous year, when there were 332 cases and 42 deaths. There were also, however, 109 cases of continued fever (6 deaths). These diseases were most prevalent during the first quarter, and the report points out that enteric fever is frequently spread by allowing linen, &c., soiled by the discharges of the patient, to remain undisinfected in the dwelling-house, and by using the midden-privy as

* The estimated population given in the report greatly exceeds that calculated on the rate of increase during the previous decennium, which would be 37,960. Nothing is said in the report as to the causes of this great increase in the population during the last three years.

a receptacle for the infected excreta. There were 6 deaths from diphtheria and membranous croup, 22 from measles, 15 from whooping cough, and 21 from diarrhœa. In 1893 the number of deaths from diarrhœa was 75. Although 747 cases of infectious disease were notified, only 1 case was removed to the isolation hospital for treatment.

General Sanitation.

The sewers and channels are reported to have been improved or extended at Thornley, Shotton Colliery, Wingate, and South Hetton. At Station-town and South Wingate many of the house drains have been properly trapped, at Shotton village a system of drainage is being laid down, and at Thornley settling tanks for the sewage have been constructed.

A very large number of houses have during the year been provided with outdoor conveniences, and this especially applies to the villages of Thornley, Wheatley Hill, and Shotton Colliery. With regard to the cleansing of ashpits and the removal of refuse, the report states "that there is still room for improvement. "The greatest difficulty is experienced in the case of "cottages belonging to individual owners, who, though "willing to pay, are unable to secure the necessary "regularity in that work."

There is no proper water supply to Hawthorn village, or to about 80 houses at Castle Eden which have been built within recent years.

A water supply is now being provided for the village of Easington, and the want of a proper water

supply at Castle Eden Colliery, Wingate Lane, and Station Lane, Wingate, is being considered by a special Water Committee, and an engineer has been engaged to make the necessary surveys, &c. Under the Housing of the Working Classes Act about 80 notices are stated to have been served, and 30 houses have been closed by magistrates' order. The slaughter-houses, dairies and cowsheds, and common lodging-houses are all reported to have been regularly inspected, and to have been kept in fair condition.

The report points out that both the general and zymotic death-rates of the district are lower than those for the County and for England and Wales. The rates in the Easington district during 1894 are, however, compared with those for the County and for England and Wales for 1893, which was a very unhealthy year. For last year both the general and zymotic death-rates of the Easington rural district were considerably above the similar rates for the County and for England and Wales.

Sanitary Requirements.

1. A proper water supply for Hawthorn village, Castle Eden, and Castle Eden Colliery
2. A proper steam disinfecting apparatus, and a more suitable isolation hospital.
3. The cleansing of ashpits, and the removal of house refuse by the District Council in all the more populous villages in the county.

HARTLEPOOL RURAL DISTRICT.

S. GOURLEY, M.D., Medical Officer of Health.

Area in Acres, 18,368. Estimated Population, 1894, 2,375.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
32·8	15·5	0·84	89

Phthisis death-rate, 0·4 ; Respiratory diseases death-rate, 3·3. The respiratory diseases death-rate was slightly higher, but all the other mortality rates are much lower than those of the previous year, and very satisfactory.

Infectious Diseases.

Only 10 cases were notified during the year, viz., 5 of diphtheria, 3 of enteric fever and 2 of scarlet fever. The only deaths from zymotic diseases were 2 from diphtheria.

General Sanitation.

The report states that at Greatham village there are a number of houses in a bad sanitary condition and barely habitable. "A number of decent cottages are urgently needed in this village." The water supply of the district has been examined and found to be satisfactory. The dairies have also been periodically inspected and are reported to be in good order. A house-to-house inspection of the greater part of the district has been made, and 293 notices have been served for the abatement of nuisances by the inspector. 42 formal notices by order of the Sanitary Authority were also served, and have mostly been complied with. Improvements in spouting, drainage, and other repairs have been effected during the year.

A case of enteric fever occurred at the Workhouse, and the water supply was therefore analysed. The water from both of the wells was found to be polluted, one of them to such an extent as to be unfit for drinking purposes.

Sanitary Requirements.

1. Improved house accommodation for the village of Greatham, and the closing of the houses that are unfit for habitation.

2. A purer water supply to the Workhouse.

HOUGHTON RURAL DISTRICT

(Northern Division).

D. S. PARK, F.R.C.S., Medical Officer of Health.

Area in Acres, 8,399. Estimated Population, 1894, 13,740.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
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40·9

16·9

2·5

144

Phthisis death-rate, 1·3 ; Respiratory diseases death-rate, 2·9. The above death-rates compare very favourably with those of the previous year, the general death-rate being especially reduced.

Infectious Diseases.

The number of cases notified was 171, or less than half the number reported during 1893. The most prevalent disease was scarlet fever (95 cases), but it was of a mild type, and only caused 3 deaths, all in the Newbottle district. The spread of the disease is attributed to the carelessness of parents in not properly isolating their children whilst in an infectious state. There were 9 cases of diphtheria, and in most instances the disease was associated with sanitary

defects. 44 cases of enteric fever were reported, and 8 of these were fatal. Cases were notified during every month of the year, the most of them being reported from the Newbottle and Penshaw districts. Many of the cases were associated with insanitary conditions, mostly in connection with the privy accommodation, and the importance of frequently emptying and disinfecting the ashpit-privies is pointed out. Measles caused 14 deaths, 13 of which were in the Penshaw district, and in consequence of its epidemic prevalence the schools at Shiney Row were closed during April, with the result that the disease was checked. Eight cases of infectious disease (enteric fever) were removed to the isolation hospital, and houses and clothing were disinfected where possible.

General Sanitation.

For the most part the water supply has been satisfactory during the year, but at East Herrington the supply failed, and water is now carted to the houses. A scheme for supplying the village with water is stated to be under consideration. Many sanitary improvements have been effected in the district during the year, especially at Shiney Row, New Penshaw, Dubmire, and Warden Law, the houses having been improved, new house drains and improved privy accommodation provided, and the yards paved. Action has been taken under the Housing of the Working Classes Act respecting 60 houses, 10 of which were closed and the others put into a habitable condition. The new drainage scheme is completed, and

“the district is now thoroughly and efficiently drained.” The scavenging and removal of refuse throughout nearly the whole district is done by contract, mostly by farmers, and in summer the work does not appear to be satisfactorily performed. The cost of scavenging per house is 8s. 4d. per annum. The report points out that there is only one sanitary inspector for the whole district, which cannot be properly and systematically inspected by the present staff.

There are no registered common lodging-houses in the district, but the dairies, cowsheds, and slaughter-houses are stated to be kept in a satisfactory state.

Sanitary Requirements.

1. An improved water supply for East Herrington Village.
2. The scavenging and removal of refuse more systematically and efficiently during the summer months appears to be desirable.
3. An additional sanitary inspector is apparently necessary.

HOUGHTON RURAL DISTRICT (Southern Division.)

J. R. SUTHERLAND, L.R.C.P., Medical Officer of Health.

Area in Acres, 6,409.		Estimated Population, 1894, 18,900.	
Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
34·4	18·0*	2·6	170

Phthisis death-rate, 0·89; Respiratory diseases death-rate, 3·6. The death-rates among children and

* Including 8 deaths outside the district belonging thereto.

from acute lung diseases were rather high, but the other mortality-rates compare very favourably with those of the previous year.

Infectious Diseases.

The number of cases reported under the Notification Act was 321, including 236 of scarlet fever (8 deaths), 47 of enteric fever (12 deaths), and 29 of erysipelas. Most of the cases and all the deaths from scarlet fever were in the Hetton district. The continued prevalence and spread of this disease is attributed to children attending the schools while still in an infectious state. Enteric fever was not so prevalent as in 1893, but it was relatively much more fatal. The cases were fairly evenly distributed over the district, and except for a few cases in the East Rainton district, with which insanitary conditions were associated, the cause of the disease could not be ascertained. Measles and whooping cough were prevalent during the summer in the Hetton district and caused 12 and 5 deaths respectively, but the deaths from diarrhœa, owing probably to the colder and wetter summer, numbered only 6 as against 30 in the previous year. Five cases were removed to the isolation hospital for treatment.

General Sanitation.

The new sewerage system has been completed and works satisfactorily. Nearly all the house drains have also been trapped. A pure water supply has been provided for East Rainton village, but at Moorsley the supply is not satisfactory, the water

being carried from springs on the hillside to the reservoir through open earthenware pipes, and therefore liable to contamination. Arrangements, it is stated, have been made to replace these by proper metal water pipes. The scavenging and cleansing of ashpits in the Hetton district is perfectly satisfactory, but I am sorry to say "I cannot speak in the same terms of other portions of the division, the inspector frequently having to complain of neglect of duty on the part of the contractors." At Brickgarth very many of the houses have been greatly improved, a number of them having been rebuilt, and privy accommodation is to be provided for them. Over £5,000 is stated to have been spent on the houses during the past year. At Hetton Downs similar improvements have been effected. The insanitary conditions existing at the houses in the side streets in Hetton and at Johnson's Row, West Rainton, and mentioned in last year's report, are again referred to. Serious defects of drainage are reported at The Freehold and Grainger's Terrace, and at Cocken Terrace reference is made to the insanitary condition of the ashpits and privies.

Sanitary Requirements.

1. The improvement of the water supply to Moorsley village.
2. The enforcement of the regular and systematic removal of house refuse throughout the district.
3. The removal of the serious sanitary

defects existing in the Cross Streets, Hetton ; at Johnson's Row, West Rainton ; at The Freehold ; and at Grainger Terrace and Cocken Terrace.

LANCHESTER RURAL DISTRICT (Medomsley Division).

W. T. BOLTON, L.R.C.P., Medical Officer of Health.

Area in Acres, 21,213. Estimated Population, 1894, 7,415.

Birth-rate.	Death-rate.	Zymotic death-rate,	Infant Mortality-rate.
33·3	14·1	1·4	125

Phthisis death-rate, 1·1 ; Respiratory diseases death-rate, 1·8. Excepting the infant mortality rate, the above rates are a little lower than those for 1893, and are satisfactory.

Infectious Diseases.

The 105 cases reported under the Notification Act included 6 of small-pox (3 deaths), 54 of scarlet fever (2 deaths), and 17 of enteric fever (1 death). The small-pox cases occurred in the Medomsley and Ebchester districts, and were all removed to hospital. “ In the eastern division of the Medomsley district infectious disease was prevalent all through the year, “ and is no doubt kept up by intermixing or house-to-house visitation.”

General Sanitation.

The dairies and slaughter-houses are said to have been kept in good order, and no unwholesome meat came under notice. A number of new ashpit-privies have been erected in place of others in a defective condition.

At Hamsterley Colliery all the houses have been put into a state of repair, and the dampness as far as possible remedied ; each house has also been provided with a proper system of drainage. No action was necessary under the Housing of the Working Classes Act, but the spouting of the houses throughout the district has been steadily proceeded with during the year. A proper sewerage system has been laid down for the Westwood, Derwentside, and Croniwell district, and disposal works for the sewage are to be constructed at Croniwell. The scavenging of the colliery villages is stated to have been fairly well performed.

Sanitary Requirements.

None specially referred to, but a proper steam disinfecting apparatus for the district appears to be desirable.

LANCHESTER RURAL DISTRICT
(Lanchester Division).

J. WILSON, M.D., Medical Officer of Health.

Area in Acres, 29,956. Estimated Population, 1894, 16,419.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
40·7	21·0*	2·9	190

Phthisis death-rate, 1·1 ; Respiratory diseases death-rate, 4·9. The above statistics are not satisfactory, the general death-rate, as well as the infant mortality and respiratory diseases death-rates being very high. For several years the mortality from acute lung diseases has been excessive in this district.

* Excluding 11 deaths in workhouse not belonging to the district the death-rate would be 20·4.

Infectious Diseases.

The number of cases notified was 359, or 109 less than in the previous twelve months. The most prevalent disease was, as usual, scarlet fever (180 cases). The disease was of a mild type and scattered throughout the district, and the only 3 deaths caused by it were all in the Esh township. There were 50 cases of enteric fever reported (7 deaths), and this disease became epidemic at Malton Colliery in October, 21 cases occurring within a short period. The drainage was in a bad condition, but the cause of the outbreak was most probably connected with the water supply, which was pronounced by the County Analyst to be unsafe and unwholesome for drinking purposes. A few cases also occurred at the adjoining hamlet of Biggen, one of them being at a farm, the milk supply from which was therefore stopped for a time. Here, also, the water supply was found to be impure, and the question of supplying both this place and Malton Colliery from the Consett Company's water mains is under consideration. Measles was epidemic in the Esh district in August, and during the year caused 14 deaths, while there were also 16 deaths from whooping cough and 5 from diarrhœa. Ten cases of infectious disease were removed to the isolation hospital.

General Sanitation.

At Cornsay Colliery there is some house property reported in an insanitary condition, while Upper Houses and some of the private houses at Langley Park are stated to be in a bad state of repair.

At Greencroft Cottages and Happy Land improvements in the houses have been effected, and at Holmside Barracks and East Hedleyhope sanitary defects have been remedied. The covering of the ashpits at Hedleyfell, Newhouses, and Ushaw Moor is recommended, and at Hamsteels Colliery and Quebec some of the ashpits require repairing. The drainage and privy accommodation at Malton Colliery have been improved, but the sewage of this village still pollutes the River Browney. The water supply to Hollinside Cottages is defective in summer. The villages of Maiden Law, Lanchester, Square House Cottages, Wilk's Hill, and Esh have been provided with a pure water supply.

Sanitary Requirements.

1. A better supply of water to Malton Colliery, Biggen, and Hollinside.

2. The covering over of the open ashpits and the remedying of the other defects mentioned in the report.

3. The proper disposal of the sewage of Malton Colliery.

LANCHESTER RURAL DISTRICT

(Stanley Division).

T. BENSON, L.R.C.P., Medical Officer of Health.

Area in Acres, 9,543. Estimated Population, 1894, 15,200.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
37·3	17·8	2·5	171

Phthisis death-rate, 0·6 ; Respiratory diseases death-rate, 3·4. The above rates compare favourably

with those of the previous year, and the general death-rate is fairly satisfactory.

Infectious Diseases.

264 cases, or 10 more than in 1893, were notified, scarlet fever being by far the most prevalent disease (195 cases), and present in some part of the district during the whole year. There were 34 cases of enteric fever reported, but except at Dipton, where 19 cases occurred, it was not anywhere prevalent. To several villages this disease appeared to be imported from outside the district, and at Dipton it probably spread from the first cases of the outbreak which occurred towards the end of 1893. Measles became epidemic in several villages towards the end of the year, and the schools were closed at Burnopfield and Tanfield Lea with very beneficial results. No cases of infectious disease were removed to hospital during the year.

General Sanitation.

Under the Housing of the Working Classes Act, 2 houses have been closed at Hill Top, 2 at Clough Dene, and 3 at Annfield Plain, while 31 houses in various parts of the district which were in a more or less dilapidated condition are stated to have been thoroughly repaired.

Sewerage and sewage disposal works have been laid down for the western part of Burnopfield, and sewage disposal works by chemical filtration will shortly be completed for Annfield Plain, Catchgate, Kyo, and East Pontop districts. A number of ashpit-

privies in the district have been either repaired or rebuilt, and the scavenging and removal of refuse is stated to have generally been carried out without complaint.

A proper water supply has been provided to the Old Causey Rows, and to 5 houses at Hill Top. The dairies, cowsheds, slaughter-houses, and common lodging-houses are reported to have been fairly well kept.

Sewage disposal works are stated to be required for the villages of Tanfield and Tanfield Lea, as the sewage at present pollutes the Houghel Burn.

Sanitary Requirements.

1. A more suitable isolation hospital.
2. A proper system of sewage disposal for the villages of Tanfield and Tanfield Lea.

SEDGEFIELD RURAL DISTRICT.

G. R. SHERATON, L.R.C.P., Medical Officer of Health.

Area in Acres, 45,243. Estimated Population, 1894, 18,849.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
38·0	17·2	2·1	169

Phthisis death-rate, 1·3; Respiratory diseases death-rate, 2·1. All the above death-rates are considerably lower than was the case in 1893. There were 156 deaths in the County Asylum, which are not included in the above rates.

Infectious Diseases.

There were 231 notifications as compared with 233 notifications during the last 8 months of the previous year. There were 71 cases of scarlet fever,

but the disease was of a very mild type, and did not cause a single death. The 87 cases of enteric and continued fevers were mostly confined to the Trimdon and Cornforth townships, where all the 6 deaths from the first-named disease were located. The report states that the continued prevalence of enteric fever at the Trimdon Collieries "can only be attributed to "the overcrowded dwellings and insanitary surroundings." Of the 22 cases of diphtheria, 19 were at West Cornforth, where scarlet fever was also chiefly prevalent. The privies and ashpits in this village are in a very insanitary and offensive state, but the necessary alterations are, it is said, being proceeded with. Measles caused 16 deaths, and on account of its epidemic prevalence at Sedgefield and West Cornforth it was necessary to close the schools at these villages. There were 13 deaths from whooping cough, and 3 from diarrhoea, the former disease being especially fatal at Sedgefield.

The district is still unprovided with any means of isolating infectious patients.

General Sanitation.

850 yards of new sewers have been laid down, chiefly in the Trimdon and Cornforth townships, and drainage works are in course of execution at Fishburn. A scheme for supplying Old Trimdon with a proper water supply will shortly be carried into effect. There are 105 cowsheds and dairies on the register, and these, as well as the common lodging-houses, have been inspected, and are stated to have been kept in a

satisfactory manner. At Trimdon Colliery 39 houses have been re-built, but though 72 back-to-back houses in that village have been provided with through ventilation, "they are all more or less dilapidated and ill lighted, and need reconstruction." Nothing has been done to improve the deplorable condition of the Mainsforth Rows, Chilton Lane, mentioned in the previous annual report. 175 statutory notices were served for the abatement of nuisances. The report again recommends that the Authority should undertake the scavenging and the periodical cleansing of the ash-pits and privies in the more densely populated villages.

Sanitary Requirements.

1. A permanent and properly equipped isolation hospital.
2. Prompt attention to the nuisances at Mainsforth Rows.
3. The enforcement of the Housing of the Working Classes Act where necessary, and the sanitary improvement of West Cornforth and the Trimdon villages.
4. The scavenging and the removal of excrement and house refuse by the Authority in the more populous districts.

* SOUTH SHIELDS RURAL DISTRICT.

W. ARMSTRONG, L.R.C.P., Medical Officer of Health.

Area in Acres, 12,409. Estimated Population, 1894, 12,055.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
31·5	14·3	1·7	147

* In calculating the vital statistics of this district, the population of, and the births and deaths occurring in, the Harton (South Shields) workhouse are excluded.

Phthisis death-rate, '99 ; Respiratory diseases death-rate, 2·6. All the above rates compare very favourably with those for 1893, and are satisfactory.

Infectious Diseases.

The number of cases notified was 171, the majority of which (102) were of scarlet fever. Cases of this disease, which was most prevalent in the Whitburn and Harton township, were reported in every month of the year. Of the 32 cases of enteric fever reported, 18 were at Boldon Colliery, and referring to the prevalence of this disease in this village Dr. Armstrong says "I cannot help thinking "that the cause, to a great extent, must be attributed "to the grossly insanitary state of the colliery "When the state of the ground in wet weather is "considered, the dampness in and around the houses, "and the large open ashpits, generally overflowing with "putrid matter and ashes, the cause of typhoid fever "being present is not far to seek." Towards the end of the year measles was very prevalent in Harton and Whitburn villages, and the school at the latter place was closed in consequence, and the spread of the disease prevented. 5 of the 7 deaths from diarrhœa were in the Harton township.

6 cases of scarlet fever and 3 of enteric fever were removed to the South Shields fever hospital for treatment.

General Sanitation.

Three insanitary houses at Boldon Bank have been closed, and a closing order was obtained for a

house at Whitburn, but at the end of the year it was still occupied. At White Mere Pool there is a row of houses in an insanitary condition, and the water supply to them is polluted. At Boldon Colliery the bad unmade condition of the streets and the insanitary state of the large old fashioned ashpits is referred to. Some of the houses also appear to be in a bad condition, and the paving of the back streets is recommended, and will probably soon be carried out. Several farms, notably two at West Boldon, are reported to be in a "very insanitary condition." Attention is drawn to the polluted state of the River Don at Hylton Bridge by sewage matter from Usworth Colliery, and the drinking water of two farms is stated to be contaminated by this stream. The new main sewer from East and West Boldon is now completed, and improvements in sewerage have been made at Boldon Colliery and in the Harton township. In the Harton district the scavenging is said to be satisfactory, but in Boldon "there is room for improvement." 11 cowsheds have been reported as defective.

Sanitary Requirements.

1. The paving of the streets at Boldon Colliery and the provision of proper surface drainage.
2. The substitution of more sanitary conveniences for the large open ashpits at Boldon Colliery, and more regular and efficient scavenging.
3. A house-to-house inspection of the colliery, especially of the houses in Fenwick's Row, for the detection of insanitary conditions which may exist.

4. The remedying of the defects mentioned as existing on the farms in the district.

STOCKTON RURAL DISTRICT.

J. W. BLANDFORD, L.R.C.P., Medical Officer of Health.

Area in Acres, 34,228.		Estimated Population, 1894, 12,440.	
Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality-rate.
31·3	12·2*	1·3	98.

Phthisis death-rate, 1·2 ; Respiratory diseases death-rate, 1·8. The above mortality rates are much below the average and very satisfactory.

Infectious Diseases.

The number of cases reported under the Notification Act was 82, which is somewhat fewer than in the previous year. Scarlet fever and enteric fever were the most prevalent, 37 cases of each disease having been notified ; but whilst the former only caused 1 death, enteric fever was fatal in 8 instances. Several of the cases of the latter disease were connected with insanitary surroundings. There was 1 case of typhus fever at Haverton Hill and 1 case of small-pox at Stillington, but the means taken to prevent these serious diseases from spreading were successful.

Measles caused 3 deaths, all at Norton, where the disease was so prevalent that it became necessary to close the schools. Only 4 cases of diphtheria were reported, and these were mostly connected with sanitary defects. 9 cases of infectious disease were isolated in the Middlesbro' hospital.

* This rate does not include 12 deaths outside the district but belonging thereto, which would raise the total death-rate to 13·1 per 1'000.

General Sanitation.

At Norton and Billingham extensions of the sewers have been made, but the report recommends that the termini of all drains should be ventilated by shafts, and that at Norton, Eaglescliffe, and Billingham automatic tanks should be provided for properly flushing the sewers.

The great advantage of the ash closet system, which in this district has for the most part replaced the insanitary ashpit-privies, is pointed out, and the report urges that all old property should be brought under this system gradually, when repairs are necessary.

The water supply to a large portion of the district is obtained from the Stockton and Middlesbro' water company, which now obtains its water from a purer source than the river Tees. At Carlton Ironworks the water supply has been improved by the addition of more standpipes, and at Billingham the use of the water company's supply instead of that from local wells is recommended. The scavenging of the district is reported to have been satisfactorily done. The dairies and cowsheds are registered, and the report suggests that periodical reports as to their sanitary condition should be supplied to the District Council "so that the Act does not drift into a dead letter." The slaughter-houses are not registered, but both these and the only common lodging-house have been kept in a satisfactory condition. A great many nuisances have been abated, but the medical officer of health says "I regret that many of the houses which were reported

“by Mr. Brown, when making the inspection two years ago, as insanitary have not had the necessary changes made to make them healthy, and I would point out that many of the fever outbreaks have occurred in the property then reported.”

Sanitary Requirements.

1. The remedying of the sanitary defects reported by the surveyor, as a result of his inspection two years ago.

2. The automatic flushing of the sewers as mentioned in the report.

3. The registration of the slaughter-houses, and a better supervision of the dairies and cowsheds.

4. An improved water supply for Billingham.

5. A scheme for properly disposing of the sewage of Wolviston which at present pollutes a stream and causes a nuisance.

6. The extension of the Thorpe sewer up Wynyard Lane, and also the lengthening of the outfall sewer at the east end of Long Newton.

SUNDERLAND RURAL DISTRICT.

T. COKE SQUANCE, M.D., L.S.Sc., Medical Officer of Health.

Area in Acres, 7,404. Estimated Population, 1894, 18,620.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
37·6	18·3*	2·04	159

Phthisis death-rate, 1·39; Respiratory diseases death-rate, 3·5. The general death-rate is 2·3 per 1,000 below the average of the past 10 years, while the

* Exclusive of 7 deaths not belonging to the district.

other mortality rates are considerably lower than those for the previous year. Considering the urban character of a large portion of the district, the mortality statistics are fairly satisfactory.

Infectious Diseases.

The notifications received numbered 468, which was considerably in excess of that for 1893 (297). This increase was entirely due to the great prevalence of scarlet fever (292 cases and 5 deaths). The disease is stated to be practically endemic, and to be greatly spread by the carelessness of the parents. "Fever," which includes enteric, continued, and relapsing fevers, was again prevalent, though to a slightly less extent than in the previous year. It was however more fatal, causing 18 deaths, as compared with 15 deaths in 1893. As to enteric fever, Dr. Squance says, "The remarks made in my annual report for 1893 still hold good as to the condition and situation of the privy-middens being the principal factor in the causation of this disease at Ryhope," and the prevalence of the disease at Ford is attributed to the same cause, the middens there being mostly foul, deep, uncemented pits. At New Silksworth where the sanitary surrounding of the houses are much better the disease was also prevalent, and on analysis the water supply was found to be contaminated. The possibility of not only water reservoirs near communities, but also houses, becoming infected by the dust from privy-ashpit refuse is pointed out. Whooping cough was responsible for 11 deaths, but diarrhœa was never

prevalent and only caused 3 deaths as against 40 in 1893, and the report points out that there is an inverse ratio between the rainfall and the mortality from summer diarrhœa. There is no adequate system of disinfection of infected houses carried out, "indeed "with the present staff, to do so efficiently would be impossible." The district is still without an isolation hospital, the Local Government Board not yet having given any decision as to the site which has been chosen. The delay of that Board in this matter appears to be inexcusable. The supplying of properly covered pails by the District Council for receiving the excreta of patients suffering from enteric fever is advocated, so that the infectious material may be periodically removed and destroyed, instead of, as is frequently the case, being disposed of undisinfected into the privy-ashpit.

General Sanitation.

The sewers at Ryhope are not ventilated, and there is no regular system of flushing carried out. The main sewers at Ford are stated to be much too large and without any arrangement for flushing.

The water supply to New Silksworth was during the year found to be polluted, but the source of the contamination has not yet been determined, though the matter is still being investigated. The village of Tunstall and some of the outlying farms are supplied from surface wells, and every care is taken to prevent their pollution. The disposal of excrement and house refuse is mostly by the old-fashioned, open and deep

midden-privies, which are very insanitary and a serious danger to health. "Steps should be taken to endeavour to remedy the condition of things as far as possible by at any rate cementing the ashpits and improving the condition of the privies." The Sanitary Authority has decided that in future all privies erected shall be constructed on the ash-closet plan recommended by the County Council. The removal of refuse in the colliery villages is for the most part satisfactorily performed by the colliery authorities, but in the rest of the district, except Ford, where the Sanitary Authority contract for the work, the cleansing of the ashpit-privies is very irregularly and badly carried out, and the receptacles are frequently overflowing and in a filthy condition. The report urges that the cleansing of the ashpits throughout the district should be undertaken by the District Council.

The framing of bye-laws for the regulation of slaughter-houses, and of new building bye-laws uniformly for the whole district, which should be strictly enforced, is strongly advocated. In the past the existing bye-laws do not appear to have been at all systematically enforced, and "grave irregularities have occurred for a considerable period."

"There is pressing need for more thorough and frequent inspection of the district, and the time has come when it is absolutely necessary that an additional inspector of nuisances should be appointed."

The report deals separately with the sanitary

condition of each of the villages in the district, in nearly all of which there are stated to be serious defects in excrement disposal and removal, drainage, or house accommodation.

Sanitary Requirements.

1. The prevention of the pollution of the water supply at New Silksworth.

2. The covering and cementing of the large open ashpit-privies, which should also be reduced in size.

3. The removal of excrement and house refuse by the District Council in all the populous parts of the district.

4. A proper system of sewerage and sewage disposal at Grange Town, and the ventilation of the sewers at Ryhope.

5. New building bye-laws which should be enforced, and bye-laws for the regulation of slaughter-houses.

6. An additional sanitary inspector.

7. The supplying of galvanized covered pails to houses infected by enteric fever for the reception of the excreta of the typhoid patients.

TEESDALE RURAL DISTRICT
(Middleton Division).

J. ATKINSON, L.R.C.P., Medical Officer of Health.

Area in Acres, 40,897. Estimated Population, 1894, 3,804.

Birth-rate. Death-rate. Zymotic death-rate. Infant Mortality-rate.

26·2

15·0

0·5

170

Phthisis death-rate, 1·0; Respiratory diseases

death-rate, 2·6. There was a marked decline in the death-rate, compared with the previous year, and the birth and zymotic-rates were also lower. The infant mortality-rate was, however, very high.

Infectious Diseases.

A number of cases of scarlet fever occurred at Egglestone and Foggarthwaite, which were probably contracted at Egglestone school. The school was closed for a short time and disinfected, and the disease was confined to a few houses, and in no instance fatal. Membranous croup caused one death, and whooping cough was prevalent in parts of the district during the latter half of the year, one death resulting from it at Middleton.

General Sanitation.

The majority of the mine shops in the district have had their sanitary condition much improved. The replacement of the rubble drains in the village of Middleton by proper sanitary pipes is recommended, and also the trapping of the drains there, particularly at the Town Head and part of the Hude. The drainage of Egglestone village has been greatly improved. The farm houses throughout the district are generally being put into a better sanitary condition, but more light is advocated in the cow-byres. The river Tees between Middleton and Cotherstone is stated to be a particularly clean river as far as sanitary drainage matter is concerned.

Sanitary Requirements.

1. The adoption of the Infectious Diseases

Notification Act is again strongly recommended.

2. The better lighting of the cow-byres is desirable, and the improvement in the sewerage and drainage of Middleton is also very necessary.

TEESDALE RURAL DISTRICT (Barnard Castle Division).

A. H. SEVIER, M.B., Medical Officer of Health.

Area in Acres, 13,636. Estimated Population, 1894, 1,004.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
25·9	12·9	1·0	115

Phthisis death-rate, 1·0; Respiratory diseases death-rate, 3·0. The death-rate was practically the same as in the previous year, but there was a considerable decline in the infant mortality-rate.

Infectious Diseases.

The only death was from membranous croup, which occurred at the village of Whorlton, where there was a slight outbreak of the disease. The probable cause of the outbreak is not stated. There was a marked absence of diarrhœal complaints throughout the district.

General Sanitation.

The sanitary supervision of the district is stated to have been carried out in an efficient manner, the water supply receiving particular attention. The water of the well at Whorlton was examined, and found to be bad, but the report does not state what steps, if any, were taken to provide a purer supply. "All dairies, cowsheds, &c., have been regularly "inspected, and found in a satisfactory condition."

Sanitary Requirements.

1. A purer water supply at Whorlton appears to be necessary.
2. The adoption of the Infectious Diseases Notification Act.

TEESDALE RURAL DISTRICT (Staindrop Division).

JAMES BEATTIE, L.R.C.P., Medical Officer of Health.

Area in Acres, 25,494. Estimated Population, 1894, 6,245.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
30·2	12·8	0·3	116

Phthisis death rate, 0·3 ; Respiratory diseases death-rate, 2·1. All the above death-rates are very low, especially when it is considered that part of the district has a mining population. The rates are much lower than in the previous year.

Infectious Diseases.

The only two deaths were both from membranous croup, one being in the Cockfield and the other in the Staindrop township. Both cases occurred in isolated houses, but diphtheria was prevalent on the borders of the district at the time. A case of enteric fever, the disease being contracted at Bishop Auckland, occurred at an isolated farmhouse north of Woodland, while in January there were two cases of scarlet fever at Gaunless Mill. 4 cases of measles occurred in a common lodging-house at Staindrop, and the house was at once closed for lodgers. This house was afterwards closed permanently, owing to its insanitary condition.

General Sanitation.

Staindrop village and the surrounding district is said to be in a sanitary condition.

At Cockfield sanitary improvements have been made, and the removal of refuse is reported to have been regular and efficient.

At Woodland all the deaths during the year were those of children under two years of age, and were all at the houses known as Birch Flatts. These houses have been improved outside, "but they will remain in an unsanitary condition until a new scheme of drainage is undertaken, the privies removed from their present position, and a road made down to and about the houses." Bowes' Cottages are reported to be still in an insanitary condition, and the houses at Dale Terrace have not yet been connected with the new water supply. The colliery ashpits are stated to be cleaned out regularly.

The slaughter-houses are not registered, but when visited have been found in a clean condition. The only common lodging-house, at Staindrop, is without any means for the separation of the sexes, which is "a deplorable state of affairs for an important village like Staindrop."

Sanitary Requirements.

1. The adoption of the Notification Act, and the provision of proper isolation hospital accommodation.

2. The sanitary improvement of the Birch Flatts and Bowes' Cottages, Woodlands.

3. The registration of slaughter-houses, and the enforcement of the bye-laws as to common lodging-houses.

WEARDALE RURAL DISTRICT

(St. John's Division).

C. C. HEWITSON, M.R.C.S., Medical Officer of Health.

Area in Acres, 36,096. Estimated Population, 1894, 3,470.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
20·2	15·6	Nil.	100

Phthisis death-rate, 2·5 : Respiratory diseases death-rate, 2·5. The general death-rate was the same as in the previous year, but the absence of any death from zymotic diseases is very satisfactory.

Infectious Diseases.

There were two deaths from erysipelas, but none from the seven chief zymotics. The cases of infectious diseases which came to notice were 24 of measles, 6 of scarlet fever, and 7 of erysipelas, while there were also two cases of typhoid fever reported from Copt Hill. Whooping cough was prevalent in the Lanehead district at the end of the year. The Notification Act is not in operation.

General Sanitation.

A number of privies with ashpit accommodation have been provided, and a great improvement is stated to have been effected. At High Westgate an insanitary house has been put into good order, and one lodging-house has been closed. At Westgate the Railway Hotel has been improved and provided with

a new supply of water. A new slaughter-house has been opened, and two faulty cowbyres have been improved. The hamlet of West Black Dene has during the year been supplied with a good supply of pure water.

Sanitary Requirements.

None specially referred to, but as regards notification, isolation hospital, and sanitary bye-laws, at any rate, they are the same as for the Stanhope division of the district.

WEARDALE RURAL DISTRICT

(Wolsingham Division).

T. V. DEVEY, L.R.C.P., Medical Officer of Health.

Area in Acres, 24,036. Estimated Population, 1894, 3,270.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
26·2	15·5	Nil.	116

Phthisis death-rate, 1·5; Respiratory diseases death-rate, 2·7. The death-rate was practically the same as in 1893. The fact that there was not a single death from zymotic diseases was very satisfactory.

Infectious Diseases.

The only cases which came under notice appear to be two of scarlet fever at Thornley Lane Ends. The Notification Act is not in force in the district, and there is no isolation hospital.

General Sanitation.

22 houses were supplied during the year with a pure water supply, but at Thornley the supply requires to be improved.

A new sewer has been completed from Leases House to join the main sewer, and the existing sewers and drains are reported to have been kept in good order. Several new house drains have been laid down.

Three insanitary houses have been closed as unfit for habitation, and a number of others have been improved by the erection of improved privy accommodation, spouting, or by general repairs. The old insanitary ashpit-privies are said to be fast disappearing.

The district and the schools have been frequently inspected. Apparently the improvements necessary in the lighting and cleansing of the dairies and cowsheds, as mentioned in last year's report, have not been effected.

Sanitary Requirements.

1. The adoption of the Infectious Diseases Notification Act.

2. The provision of suitable isolation hospital accommodation.

3. An improvement in the water supply to Thornley village.

4. Better lighting and the more frequent cleansing of cowsheds and dairies.

WEARDALE RURAL DISTRICT (Stanhope Division).

T. LIVINGSTONE, M.D., Medical Officer of Health.

Area in Acres, 24,527. Estimated Population, 1894, 2,757.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
22·1	10·88	0·72	32

Phthisis death-rate, 1·8 ; Respiratory diseases death-rate, 1·4. The above statistics are satisfactory, and compare very favourably with those of the previous year, especially as regards the general death-rate and the infant mortality-rate.

Infectious Diseases.

The Notification Act is not in force in the district, but the only zymotic deaths were 1 from enteric fever at Frosterley, and 1 from whooping cough. No cause for the case of enteric fever could be assigned. There were 4 cases of measles, all in one house, at Eastgate.

General Sanitation.

The ventilation of the Frosterley sewer has been improved, and a new sewer has been laid down at Crawleyside for 50 houses, but no sewage disposal works have been laid down in connection with it, and the sewage discharges into a field. Under the Housing of the Working Classes Act a mineshop at Rookhope and a house at Frosterley Batts have been closed, and one at Bollihope and another at Crawleyside have been improved.

9 houses at Bishopley and Frosterley station have been supplied with water during the year, but a new storage tank is said to be required at Bridge End. Frosterley North School has also been supplied with water. A few ashpit-privies have been erected in various parts of the district, and at Frosterley 4 ashpits have been improved. The district is reported to have been regularly inspected, and the sanitary

inspector has reported 91 nuisances, most of which have been attended to. The lead mine shops in the district have been improved, but one of them is structurally wrong.

Sanitary Requirements.

1. The adoption of the Infectious Diseases Notification Act.
2. A permanent and properly equipped isolation hospital.
3. New building and sanitary bye-laws.
4. Improvements of the drainage of Hill End, Eastgate, and Rookhope.
5. The laying down of proper sewage disposal works to prevent the pollution of the streams and rivers within the district.

WEARDALE RURAL DISTRICT (Derwent Division).

C. J. CONNOR, M.B., Medical Officer of Health.

Area in Acres, 13,144. Estimated Population, 1894, 523.

Birth-rate.	Death-rate.	Zymotic death-rate.	Infant Mortality-rate.
15·3	15·3*	1·9*	Nil.

Phthisis death-rate, 1·9; Respiratory diseases death-rate, 5·7.

Infectious Diseases.

With the exception of the case of whooping cough above mentioned, none of these diseases came under notice, but the Notification Act is not in force.

* If the death of a child suffering from whooping cough, who was brought into the district from Consett a few days before death, be excluded, the death-rate was only 13·4, and the zymotic death-rate nil.

General Sanitation.

The water supply, as in previous years, has been abundant and excellent. The old midden-privies in the district are gradually being improved or replaced by others of better construction. The houses at Ruffside are built back-to-back, and one insanitary house there is about to be closed. There are no common lodging-houses, and the only slaughter-house in the district, at Edmondbyers, is kept clean.

Sanitary Requirements.

Much the same as in the other divisions of the sanitary district, but they are not so pressing, owing to the smaller and more scattered population.

PORT SANITARY DISTRICTS.

HARTLEPOOL PORT.

S. BIGGART, M.D., Medical Officer of Health.

Disease on Shipboard.—The number of vessels medically inspected was 50, as compared with 238 in the previous year. 32 of these were reported as having sickness on board, and 18 were from cholera infected ports.

Hospital.—Five cases (including 2 of enteric fever) were removed from ships to the port isolation hospital, and 1 of them ended fatally. The port hospital is also used as an isolation hospital for Hartlepool and West Hartlepool, and 35 cases (including 20 of smallpox) were removed from these boroughs. The hospital is stated to have been kept in good repair.

Emigrants.—3,143 emigrants arrived in the port, 2,261 of which were aliens booked to United States or Canada, while 290 were aliens intending to remain in this country. The emigrant vessels were all visited by the inspector on their arrival in the port, and any suspicious cases of illness were at once reported to the medical officer of health. The systematic examination of passengers and emigrants was discontinued during the past year.

Vessels inspected.—The total number of vessels visited by the inspector was 1,498, as against 1,606 in 1893, and 518 revisits were made. 89 notices were served for sanitary defects, 15 of which were for dirty receptacles for the drinking water. The drinking water of all vessels received careful attention.

An inspection of the port was made by a medical inspector of the Local Government Board during the year, but his visit did not call for any special notice.

RIVER TYNE PORT.

HENRY E. ARMSTRONG, D.Hy., M.R.C.S.,
Medical Officer of Health.

Diseases on Shipboard.—The following cases were reported on arrival of vessels in the Tyne:—small-pox, 11 on voyage and 5 on or after arrival in the Tyne; cholera, 214 cases on voyage; scarlet fever, 1 on voyage and 1 on or after arrival; diphtheria, 1 on voyage; enteric fever, 12 on voyage and 4 on or after arrival; diarrhœa and dysentery, 261

on voyage and 21 on or after arrival; malarial fever and ague, 67 on voyage and 13 on or after arrival; yellow fever, 20 on voyage; influenza, 85 on voyage; scurvy, 1 case on arrival.

23 vessels were visited by the port medical officers on account of reported cases of sickness on board, and in 9 instances the patients were removed to the port hospital.

Vessels from Infected Ports.—1,004 vessels were inspected by reason of their coming from ports infected or suspected to be infected with cholera or small-pox, but no case of cholera was brought to the port during the year.

Emigrants.—All emigrant vessels have been carefully inspected on arrival in the Tyne. The number of emigrants passing through the port was 193, as compared with 1,015 in the previous year. Information as to emigrants debarking and proceeding overland to other British ports was forwarded to the medical officers of the respective ports.

General Sanitary Work.—Of the 12,043 vessels inspected, sanitary defects were noted in 1,960, including insufficient ventilation (83 cases), defective water-closets (82 cases), and defective drainage (49 cases).

Water Supply.—The water supply of 94 ships, 81 of which came from ports infected with cholera, was changed and the tanks purified. The water boats were all examined and found in good condition.

Food Supply.—Complaint was made by crews of 5 vessels as to the quality of the food supplied to them, and in two instances the food was found to be bad, and was destroyed by the inspector.

Disinfection, etc.—18 vessels were disinfected, as were also several lots of bedding and clothing. 107 beds and 26 lots of filthy clothing were destroyed by burning.

Cattle Ships.—The number of these vessels arriving in the port in a filthy condition was 24, and these were properly cleansed under the supervision of the inspector.

Disinfecting Hulk.—This hulk, which was described in the medical officer's report for 1893, was reported ready for use and in working order in October, 1894.

Cholera.—Although no case was imported into the Tyne during the year every precaution was taken with regard to vessels coming from ports infected with this disease, and the Port Sanitary Authority was fully prepared to deal with any cases had they occurred.

The port was visited during the year by one of the medical officers of the Local Government Board.



TABLE A.

TABLE GIVING POPULATION, BIRTH-RATE, DEATH-RATE, &C., WITHIN THE URBAN DISTRICTS OF THE ADMINISTRATIVE COUNTY OF DURHAM.

URBAN DISTRICTS.	Medical Officer of Health.	Area.	Population 1894 (Estimated)	Births.	Deaths.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1000 Births.	Phthisis Death-rate.	Lung Diseases Death-rate.	Notification Act in operation?	Number of Cases Notified.	Hospital accommodation.	Number of Cases removed to Hospital.	Percentage of Notified Cases removed to Hospital.	REMARKS.
BOROUGHES.																	
Darlington ...	J. Lawrence, M.D. ...	3945	39500	1242	576	31'4	14'5	1'3	118	0'2	2'3	Yes.	152	Yes.	55	36'1	
Durham ...	A. M. Vann, M.R.C.S. ..	880	15000	421	347	28'0	19'4*	2'2	130	2'0	5'2	Yes.	161	Yes.	6	3'7	*Excluding 36 deaths not belonging to the district.
Hartlepool ...	J. Rawlings, M.R.C.S. ...	552	23000	798	417	34'2	17'7*	2'04	137	1'5	3'3	Yes.	62	Yes.	8	12'9	*Excluding 8 deaths not belonging to the district.
Jarrow... ..	J. M. Nicoll, M.B. ...	728	35860	1097	557	30'5	15'5	2'17	144	1'9	2'9	Yes.	228	Yes.	79	34'6	
Stockton ...	J. H. Clegg, M.R.C.S. ...	2848	50000	1638	818	32'7	16'7*	1'92	131	1'8	2'36	Yes.	676	Yes.	232	34'3	*Including 19 deaths occurring outside the district but belonging thereto.
West Hartlepool ...	S. Gourley, M.D. ...	2454	48195	1651	701	34'2	14'5	1'72	126	1'2	2'8	Yes.	178	Yes.	26	14'6	
LOCAL BOARDS.																	
Barnard Castle ...	A. H. Sevier, M.B. ...	533	4341	111	85	25'5	17'04*	0'45	90	2'0	4'1	Yes.	6	Yes.	...	...	*Excluding 11 deaths in Workhouse not belonging to the district.
Benfieldside ...	George Renton, M.D. ...	1525	6470	208	101	32'1	15'6	1'8	86	2'1	3'5	Yes.	63	Yes.	3	4'7	
Bishop Auckland ...	T. A. McCullagh, M.R.C.S. ...	692	10500	330	223	31'4	20'1*	2'1	184	2'3	2'5	No.	...	Yes.	...	...	*Excluding 11 deaths in Workhouse not belonging to the district.
Blaydon ...	Philip Brown, M.D. ...	9349	15450	561	238	36'3	15'4	1'5	167	0'7	3'5	Yes.	84	Yes.	3	3'5	
Brandon & Byshottles	H. Smith, M.B. ...	6683	15257	571	259	37'4	16'9	2'48	162	1'04	3'9	Yes.	376	Yes.	65	17'2	
Consett ...	George Renton, M.D. ...	993	8650	258	142*	29'8	16'4*	1'04	147	1'5	3'2	Yes.	96	Yes.	...	...	*Including 11 deaths in Lauchester Workhouse belonging to the district.
Felling ...	M. F. Kelly, L.F.P.S. ...	2684	18000	787	373	43'7	20'7	2'6	161	1'4	3'1	Yes.	88	No.	6	6'8	
Hebburn ...	George N. Wilson, M.B. ...	1180	18000	667	293*	37'0	16'2*	2'88	99	1'8	2'7	Yes.	115	Yes.	18	15'6	*Including 10 deaths in Harton Workhouse belonging to the district
Houghton-le-Spring ...	D. S. Park, F.R.C.S. ...	1551	6620	298	135	45'0	18'8*	2'8	131	0'3	3'7	Yes.	105	No.	...	...	*Excluding 10 deaths in Workhouse not belonging to the district.
Leadgate ...	George Renton, M.D. ...	1838	4560	159	67	34'8	14'6	0'8	119	1'5	3'5	Yes.	30	Yes.	7	23'3	
Ryton ...	Philip Brown, M.D. ...	5150	6450	184	85	28'5	13'1	1'2	135	1'2	1'3	Yes.	46	No.	...	...
Seaham Harbour ...	L. Gerald Dillon, M.D. ...	1089	9520	354	228	37'1	23'9	4'4	186	1'9	7'4	Yes.	176	No.	...	...
Shildon & East Thicky	S. Fielden, M.D. ...	1066	9890	342	145	34'5	14'6	0'7	143	1'0	2'3	Yes.	117	No.	...	...
Southwick ...	James Stobo, L.R.C.P. ...	845	11030	425	246	38'5	22'3	4'6	211	1'2	5'6	No.	...	Yes.	12	...	
Spennymoor ...	J. C. O'Hanlon, L.R.C.S.I. ...	168	6041	233	105	38'5	17'4	1'3	133	1'5	3'3	Yes.	84	No.	...	...
Stanhope ...	John Gray, M.B. ...	211	1864	49	42	26'2	15'5*	4'2	102	1'0	1'6	No.	...	No.	...	...	*Excluding 13 deaths not belonging to the district.
Stanley ...	T. Benson, L.R.C.P. ...	2006	9300	342	134	36'7	13'3	0'3	149	1'0	1'7	Yes.	30	Yes.	...	...
Tow Law ...	James Wild, L.R.C.P. ...	470	4564	149	63	32'6	13'8	1'7	107	1'9	1'9	Yes.	140	No.	...	...
Whickham ...	A. W. Attwater, L.R.C.P. ...	5961	9600	349	144	36'3	14'9*	0'83	126	0'6	2'8	Yes.	53	No.	...	...	*Excluding 1 death not belonging to the district.
Willington ...	R. E. Brown, L.R.C.P. ...	3795	8000	280	131	35'0	16'3	2'5	135	0'7	2'9	Yes.	80	No.	...	...

ADMINISTRATIVE COUNTY OF DURHAM.

DEATHS AT CERTAIN AGES AND FROM CERTAIN SPECIFIED CAUSES.

URBAN DISTRICTS.	DEATHS AT SUBJOINED AGES.							DEATHS FROM SUBJOINED CAUSES.																				
	At all Ages.	Under 1 Year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Small-pox	Scarlet Fever.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All other Diseases.	
												Typhus.	Enteric or Typhoid.	Continued.	Phlegmo-rh.													
Darlington	576	147	82	21	40	167	119	...	2	4	6	...	9	...	1	...	2	20	5	8	5	45	94	42	10	323		
Durham	347	55	45	23	22	111	91	...	11	1	4	...	3	...	...	...	...	7	4	3	...	30	78	23	21	162
Hartlepool	417	110	85	14	22	124	62	2	...	3	6	...	5	...	...	...	2	19	2	10	...	36	77	32	18	205
Jarrow	557	158	91	43	38	173	54	...	6	4	3	...	7	1	2	...	2	12	32	13	1	70	105	38	10	251		
Stockton	818	215	136	55	52	197	163	...	18	14	7	...	10	1	4	...	2	38	4	9	3	89	118	55	31	415		
West Hartlepool ...	701	209	101	47	36	197	111	3	...	12	10	...	8	...	1	...	1	24	6	25	2	63	141	56	31	318		
Barnard Castle ...	85	10	8	2	4	34	27	...	...	...	1	...	...	...	1	...	...	...	1	...	1	9	18	13	2	39
Benfieldside	101	18	16	7	7	29	24	...	...	2	...	...	7	...	1	...	1	1	1	1	...	14	23	8	3	39
Bishop Auckland ...	223	61	26	9	10	74	43	...	1	...	4	...	13	...	...	...	2	...	5	...	1	25	30	19	7	116
Blaydon	238	94	37	12	11	58	26	...	1	2	2	...	...	...	...	...	...	2	6	11	...	12	54	26	9	113
Brandon & Byshottles	259	93	52	17	13	56	28	...	4	5	3	...	3	...	2	...	3	19	3	1	...	16	60	16	3	121		
Consett	142	38	13	6	13	46	26	...	...	...	...	...	...	...	...	...	...	3	4	2	...	13	28	10	17	65
Felling	373	127	76	21	25	73	51	1	1	1	3	1	4	...	1	...	1	26	2	8	3	26	56	22	8	209		
Hebburn	293	67	62	26	26	88	24	...	...	...	1	...	5	...	2	...	1	27	16	3	2	34	51	33	14	104
Houghton-le-Spring ...	135	39	23	7	4	27	35	...	2	1	3	...	4	...	...	...	...	4	5	...	...	3	25	12	4	72
Leadgate	67	19	12	2	6	18	10	...	...	2	...	...	2	...	...	...	...	...	...	...	...	7	16	7	2	31
Ryton	85	25	9	4	5	26	16	...	...	...	...	...	1	...	...	...	1	1	3	3	...	8	9	5	4	50
Seaham Harbour ...	228	66	54	19	14	43	32	...	2	...	...	...	5	1	...	...	1	19	7	8	1	19	71	11	4	79
Shildon & East Thickley	145	49	16	13	11	42	14	...	...	...	1	...	4	...	...	...	...	...	1	2	5	10	23	12	9	78
Southwick	246	90	60	13	12	40	31	...	3	1	...	...	7	...	3	...	...	27	1	12	1	14	62	13	4	98
Spennymoor	105	31	13	8	6	29	18	...	...	1	...	...	4	1	...	...	...	...	...	2	...	9	20	7	...	61
Stanhope	42	5	3	5	3	12	14	...	...	...	...	...	5	...	...	...	...	...	3	...	...	4	5	7	1	17
Stanley	134	51	19	7	12	36	9	...	...	...	...	...	...	...	...	...	1	1	1	1	1	10	16	9	9	85
Tow Law	63	16	10	5	2	16	14	...	1	5	...	...	1	...	...	...	1	...	...	2	...	9	9	1	...	34
Whickham	144	44	24	2	8	23	43	...	1	2	...	...	...	...	...	...	2	1	1	3	2	7	22	12	7	84
Willington	131	38	17	7	15	28	26	...	1	2	1	...	7	...	...	...	1	5	...	4	1	6	23	8	2	70
TOTAL	6655	1875	1090	395	417	1767	1111	6	54	62	55	1	114	4	18	...	24	256	113	131	29	588	1234	497	230	3239		

TABLE B 1.

ADMINISTRATIVE COUNTY OF DURHAM.

DEATHS AT CERTAIN AGES AND FROM CERTAIN SPECIFIED CAUSES.

RURAL DISTRICTS.	DEATHS AT SUBJOINED AGES.							DEATHS FROM SUBJOINED CAUSES.																		
	At all Ages.	Under 1 Year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Small-pox	Scarlet Fever.	Diphtheria.	Membranous Croup.	Fevers.				Cholera	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy	Heart Disease.	Injuries.	All other Diseases.
												Typhus.	Enteric or Typhoid.	Continued.	Puerperal.											
Auckland, Division I...	472	158	75	26	36	108	69	...	3	14	4	...	10	...	...	...	3	2	9	12	...	35	69	28	16	267
Do. Division II.	615	224	111	32	34	115	99	...	7	6	5	...	7	...	1	...	2	61	13	4	5	37	127	45	16	279
Chester-le-Street ...	1069	372	194	64	66	255	118	...	11	2	3	...	20	...	3	...	5	67	25	51	6	80	237	84	56	419
Darlington ...	123	19	10	6	11	42	35	...	1	...	...	1	...	...	...	...	...	...	4	3	...	11	15	21	3	64
Durham, E. Division...	240	101	33	16	9	49	32	...	3	2	1	...	6	...	4	...	1	2	...	1	...	14	47	13	12	134
Do. W. Division...	284	95	42	10	22	60	55	...	4	2	6	...	4	...	1	...	2	5	5	2	...	22	56	19	5	151
Easington ...	791	284	142	44	41	180	100	...	16	2	4	...	24	6	6	...	2	22	15	21	4	53	136	51	33	396
Hartlepool ...	42	7	1	...	3	13	18	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2	9	2	4	23
Houghton, N. Division	229	81	37	13	15	47	36	...	3	...	2	...	8	...	1	...	1	14	5	3	...	18	41	12	5	116
Do. S. Division	333	111	75	28	11	68	40	...	8	1	2	...	12	2	...	...	1	14	5	6	...	17	68	15	9	173
Lanchester (Medomsley Division)	105	31	13	5	8	30	18	3	2	1	...	...	1	...	3	...	2	...	3	1	...	8	14	9	1	57
Lanchester (Lanchester Division)	335	129	52	10	17	60	67	...	3	1	2	...	7	...	1	...	...	14	16	5	3	18	79	14	...	172
Lanchester (Stanley Division) ...	270	97	43	16	13	69	32	...	11	1	...	...	4	...	1	...	...	11	6	6	2	9	52	17	5	145
Sedgefield ...	482	122	51	17	57	142	93	...	...	1	...	...	6	...	...	...	2	16	13	3	...	52	67	42	8	272
South Shields...	173	56	27	10	10	40	30	...	2	...	...	...	2	...	2	...	1	9	1	7	...	12	31	18	8	80
Stockton ...	154	38	16	8	22	43	27	...	1	3	...	1	8	...	...	...	...	3	...	2	1	15	23	11	3	83
Sunderland ...	347	112	54	22	28	81	50	...	5	1	6	...	14	4	...	...	1	2	11	3	1	26	66	14	22	171
Teesdale (Middleton Division)	57	17	1	4	3	23	9	...	...	1	...	...	...	...	...	...	1	...	1	...	...	4	10	5	...	35
Teesdale (Barnard Castle Div.)	13	3	1	...	1	3	5	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	3	3	...	5
Teesdale (Staindrop Division)	80	22	10	3	4	18	23	...	...	...	2	...	...	...	...	...	...	...	...	...	2	2	13	9	...	52
Weardale (St. John's Division)	54	7	3	2	4	20	18	...	...	...	...	...	...	...	...	...	2	...	...	...	...	9	9	5	5	24
Weardale (Wolsingham Division)	51	10	3	4	4	15	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	9	5	1	31
Weardale (Stanhope Division)	30	2	1	1	3	14	9	...	...	...	...	...	1	...	...	...	...	...	1	...	...	5	4	5	...	14
Weardale (Derwent Division)...	8	...	...	1	...	4	3	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	2	1	...	3
TOTAL ...	6357	2098	995	342	422	1499	1001	3	80	40	38	2	134	12	23	...	26	242	134	130	24	456	1187	448	212	3166

INSPECTORS' REPORTS-URBAN.

URBAN DISTRICTS.			DWELLING-HOUSES AND SCHOOLS.										HOUSE DRAINAGE										UNWASHABLE FOOD														
			Foul Conditions	Structural Defects	Over-crowding	Unit for Habitation	Lodging-houses	Dairies and Milk-shops	Cowsheds	Bakelhouses	Slaughter-houses	Asphits and Privies	Deposits of Refuse and Manure	Water Closets	Defective Yard Paving	Defective Traps	No Disconnection from Sewers	Other Faults	Water Supply	Pigsties	Animals improperly kept	Offensive Trades	Smoke Nuisances	Other Nuisances	TOTALS	Scales of Unwholesome Food	Convictions for Exposure or Selling Unwholesome Food	Samples of Food and Drugs taken for Analysis	Samples of Food and Drugs found Adulterated	Samples of Water taken for Analysis	Samples of Water Condemned as unfit for use	Lots of Infected Bedding Stoved or Destroyed	Houses Disinfected after Infectious Disease	Schools Disinfected after Infections Disease	Prosecutions for Exposure of Infected Persons or Things	Convictions for Exposure of Infected Persons or Things	
DARLINGTON— Population, 39,500 Nuisance Inspector— Thomas A. Atkinson			Informal written Notices by Inspector	...	10	151	12	25	43	93	..	96	5	10	445	318½ lbs.	2	6	...	1	1	48	48		
Formal Notices by Order of Authority			...	4	1	1	...	...	1	1	101	5	18	87	50	10	24	...	5	...	...	...	5	315								
Nuisances abated after Notice			...	14	1	1	...	...	1	1	236	17	43	113	140	10	120	...	5	7	...	...	15	724									
DURIAM— Population, 15,000 Nuisance Inspector— James Coldwell			Informal written Notices by Inspector	...	2	122	...	6	6	3	...	30	16	185	1	20		
Formal Notices by Order of Authority			...	2	...	...	...	...	...	34	...	...	17	...	...	...	...	...	...	...	...	...	53	
Nuisances abated after Notice			...	4	...	...	...	...	...	156	...	6	23	3	...	30	...	...	...	...	...	16	238				
HARTLEPOOL— Population, 23,000 Nuisance Inspector— J. Charlton			Informal written Notices by Inspector	8	6	144	...	36	19	48	12	76	17	208	7	14	1		
Formal Notices by Order of Authority			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	158	
Nuisances abated after Notice			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
JARROW— Population, 35,860 Nuisance Inspector— Edward Batey			Informal written Notices by Inspector	21	13	4	...	14	6	14	60	72	9	5	23	10	...	200	17	12	4	262	746	47	5	2	1	
Formal Notices by Order of Authority			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nuisances abated after Notice			...	21	13	4	...	14	6	14	60	72	9	5	23	10	...	200	17	12	4	262	746												
STOCKTON— Population, 50,000 Nuisance Inspector— Wm. C. Crowther			Informal written Notices by Inspector	Regularly Inspected.	A good number in good condition	1174	14½ Carcases also Fruit and Fish.	4	1	557	553	2	1	1	
Formal Notices by Order of Authority			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3498
Nuisances abated after Notice			...	76	449	37	2	1854	28	52	413	143	139	245	29	5	24												
WEST HARTLEPOOL— Population, 48,195 Nuisance Inspector— Thomas Wheat			Informal written Notices by Inspector	233	130	39	...	12	11	1	...	36	37	41	69	67	8	41	8	20	1	...	3	73	831	28	2	60	2	21	18	1090	98	
Formal Notices by Order of Authority			...	9	7	2	...	...	...	...	4	...	2	11	7	1	2	27	...	...	...	...	13	85					
Nuisances abated after Notice			...	227	129	39	...	12	11	1	...	35	37	39	62	67	8	41	8	20	1	...	3	69	810												
BARNARD CASTLE— Population, 4,341 Nuisance Inspector— Joseph Wade			Informal written Notices by Inspector	...	1	4	...	2	1	4	...	4	...	29	7	287	339		
Formal Notices by Order of Authority			...	1	...	...	...	...	...	...	6	...	8	2	112	...	...	...	...	...	...	...	135	
Nuisances abated after Notice			...	...	4	...	3	1	6	...	10	...	34	5	355	...	...	...	...	...	...	...	420					
BENFIELDSDIE— Population, 6,470 Nuisance Inspector— John Dixon			Informal written Notices by Inspector	54	318½ lbs.	1	4	
Formal Notices by Order of Authority			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	33	
Nuisances abated after Notice			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	87	
BISHOP AUCKLAND— Population, 10,500 Nuisance Inspector— R. Lindsay			Informal written Notices by Inspector	18	120	2	4	1	...	7	2	3	191	7	25	142	170	22	20	16	5	17	772	1	6	15
Formal Notices by Order of Authority			...	3	31	...	2	...	7	...	1	42	1	10	38	38	5	6	1	7	...	...	...	195										
Nuisances abated after Notice			...	14	69	1	3	1	...	7	2	3	129	4	15	131	147	21	17	14	6	...	...	584											
BLAYDON— Population, 15,450 Nuisance Inspector— Thomas Young			Informal written Notices by Inspector	23	15	17	36	...	3	2	...	7	98	7	4	8	27	7	17	3	6	29	309	14 Stoved, 3 Destroyed	14	
Formal Notices by Order of Authority			...	...	13	...	5	...	...	...	34	1	...	...	...	...	...	3	...	...	...	...	63	
Nuisances abated after Notice			...	23	15	17	6	...	3	2	...	7	98	7	4	7	27	7	17	3	6	29	...	278													
BRANDON AND BYSIOTTLES— Population, 15,257 Nuisance Inspector— Richard Gardner			Informal written Notices by Inspector	...	4	1	8	82	...	74	...	17	...	4	6	4	12	272	484	4	2	221	221		
Formal Notices by Order of Authority			...	4	1	...	...	...	8	82	...	74	...	17	...	4	...	...	4	12	...	...	1	10						
Nuisances abated after Notice			8	2	8	82	...	74	...	17	...	4	6	...	8	12	273	494												
CONSETT— Population, 8,650 Nuisance Inspector— William Rippon			Informal written Notices by Inspector	131	...	29	47	207	6		
Formal Notices by Order of Authority			...	...	...	...	...	...	...	...	131	...	29	...	...	47	...	...	...	...	...	...	...	...					
Nuisances abated after Notice			...	...	...	...	...	...	...	...	...	...	29	...	...	47	...	...	...	...	...	...	...	207
FELLING— Population, 18,000 Nuisance Inspector— Alexander Purdie			Informal written Notices by Inspector	4	3	2	10	1	40	5	1	6	18	...	28	5	4	1	...	1	260	389	5	2	3	3	...	10	
Formal Notices by Order of Authority			...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	1	12
Nuisances abated after Notice			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
IEBBURN— Population, 18,000 Nuisance Inspector— M. Johnson			Informal written Notices by Inspector	...	2	4	1	1	29	10	44	143	115	2	
Formal Notices by Order of Authority			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nuisances abated after Notice			...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	44
HOUGHTON-LE-SPRING— Population, 6,620 Nuisance Inspector— E. J. Felgate			Informal written Notices by Inspector	1	6	1	1	3	12	10	10		
Formal Notices by Order of Authority			...	1	15	1	9	...	1	1	...	21	3	3	9	...	11	1	...	...	...	...	3	79									
Nuisances abated after Notice			...	1	15	1	9	1	1	...	27	3	3	9	1	1	14	1	...	...	...	...	3	91									
LEADGATE— Population, 4,360 Nuisance Inspector— Thomas S. Longstaff			Informal written Notices by Inspector	9	
Formal Notices by Order of Authority			...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nuisances abated after Notice			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
RYTON— Population, 6,450 Nuisance Inspector— John P. Dalton			Informal written Notices by Inspector	...	1	33	1	1	3	...	3	2	44	1		
Formal Notices by Order of Authority			...	2	...	4	...	...	...	...	32	1	1	...	...	...	3	...	3	...	...	...	9				
Nuisances abated after Notice			...	1	...	2	...	...	...	...	32	1	1	...	...	...	3	1	3	...	...	...	2	46			
SEAHAM HARBOUR— Population, 9,520 Nuisance Inspector— James Burrell			Informal written Notices by Inspector	11	2	6	...	2	1	...	27	1	2	1	12	2	14	81	21 Stoved, 3 Destroyed	32		
Formal Notices by Order of Authority			...	...	...	...	...	...	...	18	...	...	...	...	...	...	...	...	...	...	...	...	18	
Nuisances abated after Notice			...	...	11	2	6	...	2	1	18	27	1	2	1	12	...	...	2	...	...	...	14	99						
SHILDON AND EAST THICKLEY— Population, 9,890 Nuisance Inspector— F. J. Hopwood			Informal written Notices by Inspector	2	2	...	2	22	...	24	14	63	16	27	6	178	1	6		
Formal Notices by Order of Authority			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nuisances abated after Notice			...	2	2	...	2	...	...	...	22	...	24	14	63	16	27	...	...	...	...	...	6	178					
SOUTHWICK— Population, 11,030 Nuisance Inspector— R. Reah			Informal written Notices by Inspector	No	Return.		
Formal Notices by Order of Authority			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nuisances abated after Notice			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SPENNYMOOR— Population, 6,041 Nuisance Inspector— Thomas Crawford			Informal written Notices by Inspector	194	70	...	4	97	9	1	49	20	...	27	...	1	120	592	1	8		
Formal Notices by Order of Authority			...	...	...	102	...	...	...	...	97	9	1	49	20	...	27	...	1	...	...	...	102				
Nuisances abated after Notice			...	194	...	...	...	...	...	...	...	97	9	1	49	20	...	27	...	1	...	...	...	518			
STANHOPE— Population, 1,864 Nuisance Inspector— John Parker			Informal written Notices by Inspector	No	Return.		
Formal Notices by Order of Authority			...	...	...	...	...	...	...	...	...	...	...	...	...	...							

TABLE C.

VITAL STATISTICS OF THE ADMINISTRATIVE COUNTY OF DURHAM, COMPILED FROM TABLES
IN THE ANNUAL REPORTS OF DISTRICT MEDICAL OFFICERS OF HEALTH.

1894.

SANITARY DISTRICTS.	Population. (Estimated 1894.)	Births.	Deaths.	Zymotic Deaths.	Birth-rate.	Death-rate	Zymotic Death-rate	Deaths under 1 year per 1000 Births	Phthisis Death-rate	Bronchitis, Pneumonia & Pleurisy Death-rate	Cases removed to Hospital.	Percentage of Uncertified Deaths to Total Deaths
BOROUGHS (6.)	...	6847	3416	401	32.0	16.0	1.8	130	1.5	2.8	406	1.5
LOCAL BOARDS (20.)	...	6657	3239	395	36.4	17.7	2.1	147	1.3	3.4	114	4.04
RURAL DISTRICTS... (24.)	...	12876	6357	815	35.9	17.7	2.2	162	1.2	3.3	117	5.4
ADMINISTRATIVE COUNTY ...	754494	26380	13012	1611	34.9	17.2	2.1	150	1.3	3.2	637	4.08
ENGLAND AND WALES	...	889242	498515	52771	29.6	16.6	1.76	137	...	...	...	2.5

INSPECTORS' REPORTS—RURAL.

RURAL DISTRICTS.		DWELLING-HOUSES AND SCHOOLS.										HOUSE DRAINAGE										Water Supply	Pigsties	Animals improperly kept	Offensive Trades	Smoke Nuisances	Other Nuisances	TOTALS	Seizures of Unwholesome Food	Convictions for Exposing or Selling Unwholesome Food	Samples of Food and Drugs taken for Analysis	Samples of Food and Drugs found Adulterated	Samples of Water taken for Analysis	Samples of Water Contaminated as unfit for use	Lots of Infected Bedding Stowed or Destroyed	Houses Disinfected after Infectious Disease	Schools Disinfected after Infectious Disease	Prosecutions for Exposure of Infected Persons or Things	Convictions for Exposure of Infected Persons or Things
		Foul Conditions	Structural Defects	Over-crowding	Unfit for Habitation	Lodging-houses	Dairies and Milk-shops	Cowsheds	Workshops	Slaughter-houses	Admixtures and Privies	Deposits of Refuse and Manure	Water Closets	Defective Yard Paving	Defective Traps	No Disconnection from Sewers	Other Faults																						
AUCKLAND— Population, 63,734 Nuisance Inspector— Christopher Johnston	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	... 198 11 116 6 194	1 1 1	...	...	...	3	...	1	349 118 210	787 48 78	...	270 28 242	431 261 249	8 2 8	99 88 99	2 3 11	3 1 22	...	...	...	...	...	2175 883 1944	...	...	...	...	6	6	1	2	2	...	...		
CHIESTER-LE-STREET Population, 53,020 Nuisance Inspectors— Herbert Webb & G. Deveron	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	5 27 8 4 5 28	15 45 8	2	5	...	4	85 17 69	14	5 ...	3 ...	14 ...	11 ...	18 4 20	16 4 13	2 1 3	1 ...	21 98 21	253 98 260	10	6	6	213	...	2	2			
DARLINGTON— Population, 9,367 Nuisance Inspector— Thomas R. Croad	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	1 4 ... 1 4	...	15	...	...	3	...	1	54 ...	2 ...	12	1	31	9	22	...	11	1	...	...	...	5 4 142	172 4 142	...	...	...	...	1	...	11	11	...	...	...	
DURHAM— Population, 34,515 Nuisance Inspector— George Gregson	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	42 245 5 1 38 94	12 99 5 358 9 170	1	...	...	53	...	1	...	7 707 3 556	31 ...	9 ...	80 21	113 ...	5 ...	213 22	11 ...	7 ...	10 ...	1 ...	...	21 ...	1677 416 1325	...	...	...	...	3	1	...	193	2	3	3
EASINGTON— Population, 42,441 Nuisance Inspector— George Phalp	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	80	...	Registered. 2 Registered.	Visited Weekly	50	120 ...	240 80 50	1	1	2	12			
HARTLEPOOL— Population, 2,375 Nuisance Inspector— R. Dunipace	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	3 115 ... 14 ...	1	1	57 14	1	19 14	20 3	3 ...	6 ...	3 ...	1	10 45 ...	240 45	4	1	...	5			
HOUGHTON— Population, 32,640 Nuisance Inspector— William Morley	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	27 54 15 30 28 58	8 21 3 7 19	2	...	...	4	...	...	...	5 66 41 13 66 22	21 ...	4 ...	9 2	5 10 1 9 5 10	75 32 69	7 ...	10 4 8	16 5 10	1 ...	...	11 2 10	356 158 349	...	...	...	...	14	4	14	41	1	...	...			
LANCHESTER— Population, 39,934 Nuisance Inspector— John E. Parker	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	1 44 1 44 1 245	1 20 5 4	2	...	...	2	...	...	...	142 26 297	1 ...	2 ...	3 1	...	34 44 376	6 2	1 4	6 ...	...	...	...	10 2 11	253 152 1005	...	...	...	...	2	2	1	7	...	...	...	
SEDGEFIELD— Population, 18,849 Nuisance Inspector— William Snowden	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	150 175 25 30 175 205	...	...	...	30	150	...	...	...	200 3 203	1500 ...	10 ...	10 ...	75 ...	600 40 640	50 ...	75 ...	300 10	800 45	...	...	875 20 895	5000 175 5175	...	...	...	...	...	...	6	3	...	...	...	
SOUTH SHIELDS— Population, 13,833 Nuisance Inspector— James Young	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	No Ret. turn.			
STOCKTON— Population, 12,440 Nuisance Inspector— John Elcoate	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	87 40 125	Regularly Inspected.	13 Regularly Inspected.	A few	Regular Inspection	87 40 125	8	1	1	45	2			
SUNDERLAND— Population, 18,620 Nuisance Inspector— Anthony J. Wardropper	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	... ... ...	7 4 11	...	...	...	6	...	...	...	127 96 ...	4 ...	1 ...	10 7	15 30	6 12	...	3 ...	5 10	...	...	1 ...	63 63 126	248 205 230	...	...	...	...	2	...	2	...	...	...	...
TEESDALE— Population, 11,053 Nuisance Inspector— Robert Graham	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	... 24 ... 4 ... 28	...	...	...	...	1	3	...	...	28 2 30	12 ...	...	...	...	2 ...	49 21 70	9 ...	2 1 3	...	...	...	...	130 28 157	...	...	...	...	10	2	...	...	...	...	...
WEARDALE— Population, 10,020 Nuisance Inspector— W. Morley Egglestone	Informal written Notices by Inspector Formal Notices by Order of Authority Nuisances abated after Notice	1 3 ... 1	3 ...	3 6	1	...	2	...	...	...	141 ...	16 ...	...	8 ...	3 ...	...	29 ...	...	2 ...	...	...	...	50 4 260	262 4 260	...	...	...	...	...	...	...	7	...	...	...	



